UVIC - McPHERSON
3 2775 90354575 3

UNIVERSITY
OF VICTORIA
LIBRARY

Gift of

Mrs. Joseph Hess

~~XXVIII~~, ~~XXX~~, ~~XXXIX~~, 5, 16, 20

MATERIALS FOR THE STUDY OF BUSINESS

THE FINANCIAL ORGANIZATION OF SOCIETY

THE UNIVERSITY OF CHICAGO PRESS
CHICAGO, ILLINOIS

—

THE BAKER & TAYLOR COMPANY
NEW YORK

THE MACMILLAN COMPANY OF CANADA, LIMITED
TORONTO

THE CAMBRIDGE UNIVERSITY PRESS
LONDON

THE MARUZEN-KABUSHIKI-KAISHA
TOKYO, OSAKA, KYOTO, FUKUOKA, SENDAI

THE COMMERCIAL PRESS, LIMITED
SHANGHAI

THE FINANCIAL ORGANIZATION OF SOCIETY

BY

HAROLD G. MOULTON

DIRECTOR OF THE INSTITUTE OF ECONOMICS
WASHINGTON, D.C.

SECOND EDITION

THE UNIVERSITY OF CHICAGO PRESS
CHICAGO, ILLINOIS

UNIVERSITY OF VICTORIA

Copyright 1921 and 1925 By
The University of Chicago

All Rights Reserved

Published January 1921
Second Impression April 1921
Third Impression July 1921
Fourth Impression October 1921
Fifth Impression February 1922
Sixth Impression October 1922
Seventh Impression June 1923
Eighth Impression April 1924
Second Edition October 1925
Second Impression July 1926
Third Impression July 1927

Composed and Printed By
The University of Chicago Press
Chicago, Illinois, U.S.A.

EDITOR'S PREFACE

Collegiate training for business administration is now so widely attempted that the time has arrived when experiments should be conducted looking toward the organization of the business curriculum into a coherent whole. Training in scattered "business subjects" was defensible enough in the earlier days of collegiate business training, but such a method cannot be permanent. It must yield to a more comprehensive organization.

There can be no doubt that many experiments will be conducted looking toward this goal; they are, indeed, already under way. This series, "Materials for the Study of Business," marks one stage in such an experiment in the School of Commerce and Administration of the University of Chicago.

It is appropriate that the hypotheses on which this experiment is being conducted be set forth. In general terms the reasoning back of the experiment runs as follows: The business executive administers his business under conditions imposed by his environment, both physical and social. The student should accordingly have an understanding of the physical environment. This justifies attention to the earth sciences. He should also have an understanding of the social environment and must accordingly give attention to civics, law, economics, social psychology, and other branches of the social sciences. His knowledge of environment should not be too abstract in character. It should be given practical content, and should be closely related to his knowledge of the internal problems of management. This may be accomplished through a range of courses dealing with business administration wherein the student may become acquainted with such matters as the measuring aids of control, the communicating aids of control, organization policies and methods; the manager's relation to production, to labor, to finance, to technology, to risk-bearing, to the market,

BASIC ELEMENTS OF THE BUSINESS CURRICULUM

CONTROL

1. Communicating aids of control, for example
   - *a*) English
   - *b*) Foreign language
2. Measuring aids of control, for example
   - *a*) Mathematics
   - *b*) Statistics and accounting
3. Standards and practices of control
   - *a*) Psychology
   - *b*) Organization policies and methods

Of problems of adjustment to physical environment
- *a*) The earth sciences
- *b*) The manager's relationship to these

Of problems of technology
- *a*) Physics through mechanics, basic, and other sciences as appropriate
- *b*) The manager's administration of production

Of problems of finance
- *a*) The financial organization of society
- *b*) The manager's administration of finance

Of problems connected with the market
- *a*) Market functions and market structure
- *b*) The manager's administration of marketing (including purchasing and traffic)

Of problems of risk and risk-bearing
- *a*) The risk aspects of modern industrial society
- *b*) The manager's administration of risk-bearing

Of problems of personnel
- *a*) The position of the worker in modern industrial society
- *b*) The manager's administration of personnel

Of problems of adjustment to social environment
- *a*) The historical background
- *b*) The socio-economic institutional life
- *c*) Business law and government

to social control, etc. Business is, after all, a pecuniarily organized scheme of gratifying human wants, and, properly understood, falls little short of being as broad, as inclusive, as life itself in its motives, aspirations, and social obligations. It falls little short of being as broad as all science in its technique. Training for the task of the business administrator must have breadth and depth comparable with those of the task.

Stating the matter in another way, the modern business administrator is essentially a solver of business problems—problems of business policy, of organization, and of operation. These problems, great in number and broad in scope, divide themselves into certain type groups, and in each type group there are certain classes of obstacles to be overcome, as well as certain aids, or materials of solution.

If these problems are arranged (1) to show the significance of the organizing and administrative, or control, activities of the modern responsible manager, and (2) to indicate appropriate fields of training, the diagram on the opposite page (which disregards much over-lapping and interacting) results. It sets forth the present hypothesis of the School of Commerce and Administration concerning the basic elements of the business curriculum covering both secondary school and collegiate work.

The present volume in the series is designed to give the student an understanding of the financial institutions which the manager utilizes and which largely condition his financial policies. It presents one phase of his social environment.

L. C. Marshall

PREFACE TO SECOND EDITION

The five-year period since the appearance of the first edition of this volume has been marked by financial changes of exceptional interest and importance. In this edition the factual and statistical material have not only been brought up to date, but the significant financial developments of the post-war era have been incorporated as an integral part of the text. Thus the material in the chapters on "Money" has been amplified by illustrations drawn from recent European experiences. The chapter on "The Foreign Exchanges" has been extended to take account of post-war depreciation and the problems involved in a return to exchange stability. The chapter on "Foreign Investment Trusts" has been almost entirely re-written under a new heading, "The Marketing of Foreign Securities." "The War and the Federal Reserve System" has become "Ten Years of the Federal Reserve System." An entirely new chapter has been added on the very important problems of "Urban Real Estate Financing." The chapter on "Raising Capital for Agriculture" has been thoroughly recast in order to take account of the Federal Intermediate Credit System, established in 1923. Recent developments in the field of consumption and co-operative credit have also been incorporated, including the labor bank movement. Finally, in place of the old chapter i is an Introduction to Teachers, the purpose of which is to explain how a treatise entitled *The Financial Organization of Society* came to be written, and to indicate in what ways the author regards it as an advance over the traditional treatise on *Money and Banking*.[1]

In the preparation of this edition, the author has benefited by the criticism of numerous teachers who have used the previous edition. He is greatly indebted to Claude L. Benner, of the

[1] The Introduction originally appeared in a modified form as an article in the *Journal of Political Economy* (1922).

Institute of Economics, for assistance in revising the chapter on "Raising Capital for Agriculture"; indeed, Mr. Benner has contributed all of the content and much of the form of the section dealing with the Federal Intermediate Credit System. Forrest M. Larmer, of Des Moines, and Howell W. Murray and John B. Perlee, of Chicago, who, out of their practical experience, respectively in cattle loan, commercial paper, and discount company financing, had aided me in the preparation of the original edition, have again given me the benefit of suggestions and criticisms. Finally, without the efficient assistance of Richard N. Owens, of Emory University, in connection with every phase of the revision, a new edition at this time would scarcely have been possible.

HAROLD G. MOULTON

WASHINGTON, D.C.
August 10, 1925

TABLE OF CONTENTS

PAGE

CHAPTER I. THE NATURE AND FUNCTIONS OF A PECUNIARY UNIT

I. Definition and Origin of the Pecuniary Unit . . . 1
II. The Pecuniary Unit and Business Administration . 3
III. The Pecuniary Unit and the Apportionment of Family Expenditures 8
IV. The Pecuniary Unit and Economic Organization . . 10

CHAPTER II. THE STANDARD FOR DEFERRED PAYMENTS

I. Why Gold is Used as the Standard 16
II. Relation of Money and Prices 18
III. Economic Consequences of Price Changes . . . 20
IV. Price Changes and Social Maladjustments . . . 28

CHAPTER III. OTHER FUNCTIONS AND SERVICES OF MONEY

I. Money as a Medium of Exchange 38
II. Money as a Store of Value 39
III. The Use of Money in Production 40
IV. The Rôle of Money in War Finance 42
V. The Rôle of Money in Peace Finance 45

CHAPTER IV. THE PECUNIARY SYSTEM AND ECONOMIC AND SOCIAL STANDARDS

I. Monetary Evaluation and Social Ideas 52
II. The Confusion of Money with Wealth 54
III. The Quantity of Money Required by a Nation . . 57

CHAPTER V. THE REGULATION OF METALLIC CURRENCY

I. The Necessity of Government Coinage 61
II. Economic and Social Effects of a Bad Coinage System 63
III. Coinage Regulations of the United States 64
IV. Gresham's Law and Bimetallism 66
V. Why Gold Became the Single Standard 72
VI. Production of Gold and Silver in the World since the Discovery of America 74
VII. Commercial Ratio of Gold and Silver since 1687 . . 75
VIII. The Regulation of Subsidiary Metallic Currency . . 76
IX. Legal Tender Provisions for Metallic Currency . . 77

PAGE

CHAPTER VI. THE REGULATION OF GOVERNMENT PAPER CURRENCY

I. Arguments for and against Fiat Paper Currency . . 82
II. Paper Money as an Emergency Device 84
III. Methods of Regulating Paper Currency 88
IV. Forms of Government Paper Currency in the United States 90
V. Redemption of United States Paper Currency . . 91
VI. Legal Tender Provisions of United States Paper Currency 91
VII. Circulation Statement of United States Money, June 1, 1925 93

CHAPTER VII. THE NATURE AND FUNCTIONS OF CREDIT

I. The Nature of Credit 96
II. The Various Kinds of Credit 97
III. Investment, Commercial, and Consumptive Credit . 99
IV. The Basis of Credit 100
V. The Significance of Credit 102

CHAPTER VIII. CREDIT INSTRUMENTS

I. Investment Credit Instruments 107
II. Commercial Credit Instruments 118
III. The Use of Credit Instruments in Transferring Wealth 126

CHAPTER IX. THE FOREIGN EXCHANGES

I. The Nature of the Problem 142
II. The Exchange Mechanism 144
III. The Maintenance of Equilibrium 149
IV. Domestic Exchanges 150
V. The Disorganization of Exchanges by the War . . 152
VI. The Restoration of the Gold Standard 156

CHAPTER X. THE MODERN FINANCIAL STRUCTURE 161

CHAPTER XI. THE CORPORATION AS A DEVICE FOR RAISING CAPITAL

I. Advantages of the Corporation in Raising Capital . 169
II. Stages of Corporate Development 172

CHAPTER XII. THE MARKETING OF LOW-GRADE SECURITIES

I. The Promotion of Fraudulent and Worthless Securities 181
II. The Sale of Highly Speculative Securities 186
III. Blue Sky Legislation 189
IV. Suggested Control over the Formation of Corporations 196

PAGE

CHAPTER XIII. THE MARKETING OF HIGH-GRADE SECURITIES

I. History of Investment Banking 203
II. Modern Investment Banking Developments . . . 205
III. Functions of Investment Banking Institutions . . 209
IV. Investigation and Analysis 210
V. The Underwriting Function 218
VI. The Distribution Function 224
VII. Sundry Services of Investment Bankers 230
VIII. Capital Requirements and Profits of Investment Banks 233
IX. The Regulation of Investment Banking 235
X. Investment Banks and the General Economic Organization 237

CHAPTER XIV. THE MARKETING OF FOREIGN SECURITIES

I. Investment Trusts 245
II. The Marketing of Foreign Securities in the United States 249

CHAPTER XV. THE STOCK EXCHANGE AND CAPITAL RAISING

I. History and Organization of Stock Exchanges . . 261
II. The Brokerage Business 268
III. Economic Functions of the Stock Exchange . . . 274

CHAPTER XVI. TRUST COMPANIES AND THE MODERN FINANCIAL SYSTEM

I. The Scope of Trust Company Operations 284
II. Services Rendered to Individuals 286
III. Services Performed for Estates 287
IV. Trust Companies and Corporation Finance . . . 288
V. The Trust Company as Custodian of Securities . . 297
VI. The Regulation of Trust Companies 303

CHAPTER XVII. THE FUNCTIONS OF SAVINGS INSTITUTIONS

I. Stock Savings Banks 308
II. Mutual Savings Banks 313
III. Savings Departments in Commercial Banks . . . 315
IV. Postal Savings Banks 317
V. The Management of Savings Institutions 320
VI. The Profits of Savings Banks 324

PAGE

VII. Insurance Companies as Savings Institutions . . 325
VIII. The Economic Significance of Savings Institutions . 329

CHAPTER XVIII. THE PRACTICAL OPERATIONS OF THE COMMERCIAL BANK

I. Classification of Commercial Banks 339
II. Incidental Services of Commercial Banks 342
III. Analysis of Commercial Banking Operations . . . 344
IV. Analysis of Commercial Bank Loans 356

CHAPTER XIX. COMMERCIAL BANKING AND THE FINANCING OF FOREIGN TRADE

I. Financing Import Trade 390
II. Financing Export Trade 398
III. The Edge Law and the Financing of Foreign Trade . 402

CHAPTER XX. COMMERCIAL PAPER HOUSES AND DISCOUNT COMPANIES

A. Commercial Paper Houses 406
I. Practical Operations 407
II. The Economic Significance of Commercial Paper Houses 415
B. Discount Companies 418
I. Purchasing Accounts Receivable 418
II. The Financing of Automobile Distribution . . . 423

CHAPTER XXI. THE COMMERCIAL BANKING SYSTEM

I. Clearing-House Associations 438
II. Relations between Banks in Different Cities . . . 451
III. Loans, Deposits, and Reserves 457
IV. Commercial Banking and the Supply of Liquid Capital or Currency 464
V. Commercial Banking and the General Economic Organization 466

CHAPTER XXII. COMMERCIAL BANKING AND THE EBB AND FLOW OF BUSINESS

I. Seasonal Variations in the Demand for Funds . . 474
II. Cyclical Variations in the Demand for Funds. . . 482
III. Commercial Banking and Business Cycles. . . . 407

PAGE

CHAPTER XXIII. GOVERNMENT REGULATION OF BANKING

I. Summary of American Banking History 525
II. Principles of Governmental Regulation 527
III. The Regulation of State Banking 536
IV. The Regulation of Bank Notes 539

CHAPTER XXIV. THE FEDERAL RESERVE SYSTEM

I. The History of Banking Reform 543
II. Administrative Framework of the System 550
III. Provision of an Elastic Bank-Note Currency . . . 555
IV. The Control of Credit 566
V. The Creation of a "Discount Market" 578
VI. Clearings and Collections 585
VII. Relation of the Treasury to the Federal Reserve System 591
VIII. Federal Reserve Bank Statement 594

CHAPTER XXV. TEN YEARS OF THE FEDERAL RESERVE SYSTEM

I. The War and the Federal Reserve System 601
II. Post-War Federal Reserve Policies 606

CHAPTER XXVI. RAISING CAPITAL FOR AGRICULTURE

A. Short-Term Credit 628
I. Trade Credit 628
II. Commercial Bank Loans for Agriculture 630
B. Intermediate Credit 634
I. The Cattle Loan Company 634
II. The Federal Intermediate Credit Banks 641
C. Long-Term Credit 646
I. The Nature and Extent of the Farm Mortgage Business 646
II. Institutions Utilized in Marketing Farm Mortgages 648
III. The Federal Farm Loan System 652
IV. Significant Results of the Federal Farm Loan System 666
V. Criticisms of the Federal Farm Loan System . . 668

CHAPTER XXVII. FINANCING URBAN REAL ESTATE

I. Building and Loan Associations 676
II. Financing through the "Old Line" Mortgage . . . 681
III. Financing through the First-Mortgage Bond . . . 686

PAGE

CHAPTER XXVIII. CONSUMPTIVE CREDIT INSTITUTIONS

I. The Business of Pawnbroking 696
II. The Loan Sharks 700
III. Small-Loan Banks 705
IV. Co-operative Credit Unions 707
V. Labor Banks 710

CHAPTER XXIX. FINANCIAL INTEGRATION

I. Causes of the Growth of Financial Integration . . 719
II. Possible Dangers of Department-Store Banking . . 726
III. The Unification of the Banking System 727
IV. The Development of Branch Banking 732

CHAPTER XXX. THE FINANCIAL SYSTEM AND THE GENERAL ECONOMIC ORGANIZATION

I. Merits and Defects of the Pecuniary System . . . 739
II. The Rôle of Finance in Modern Economic Organization 743
III. The Dominant Position of the Financier 745
IV. International Aspects of Financial Organization . . 749
V. The Concentration of Financial Power 751

INDEX 771

LIST OF ILLUSTRATIONS

PAGE

Chart: Level of Prices, 1846–1924 27
Chart: The Circuit Flow of Money. 47
Chart: The Decline of the Franc 155
Chart: Dollar Exchange Value of the Franc 157
Chart: Redistribution of World Gold Supply 158
Chart: I. Institutions Utilized in Financing Non-Corporate Enterprise 163
Chart: II. Institutions Utilized in Financing Corporate Enterprise 165
Chart: The Investment Banking Structure 209
Chart: Determination of Bond Values. 215
Chart: Growth and Importance of Commercial Banks and Trust Companies 340
Chart: Money Rates in New York City 375
Chart: Principal Items in National Bank Statements . . 461
Chart: Seasonal Variations of Various Kinds of Money and of Deposits in the United States, 1890–1908 . 477
Chart: Fluctuations of Business Activity, 1877–1924 . . 485
Chart: Federal Reserve Bank Reserve Position . . . 605
Chart: Earning Assets of Federal Reserve Banks, 1914–24 617
Chart: Institutions Utilized in Agricultural Borrowing . 625
Map: The Federal Farm Loan Districts 657
German "Small Change" in 1923 87
First Mortgage Bond 114
Share of Cumulative Preferred Stock 116
Promissory Note 120
Trade Acceptance 122
Bank Acceptance. 123
Bankers' Bill of Exchange on London 124
Cashier's Check 124

PAGE

Personal Bank Check 124
Borrower's Statement—Corporation 363
Collateral Note and Agreement 369
Bill of Lading 380
Warehouse Receipt 382
Trust Receipt. 395
Letter of Credit Agreement 396
Import Letter of Credit 397
Chattel Mortgage 426
Conditional Sale Agreement 429
Lease Agreement. 433

INTRODUCTION TO TEACHERS

This volume differs from the usual textbook in the field of finance both in scope and in point of view. In the thought that it may prove useful to teachers to know something of the evolution of a course and textbook entitled *The Financial Organization of Society*, I present at this place an account of the development of my own thinking on the subject.

I should perhaps state at the beginning that my present formulation of such a course is the result of many years of experimentation. I can perhaps best make clear the reason for my present views by relating my personal experience in teaching the subject. I was trained in the classical school of economics; and accordingly, when early in my teaching career I was asked to give a course in "Money and Banking," I eagerly seized the opportunity presented to instruct my students in the accepted principles of the science. In brief, on the money side I gave them the functions of money, the history of bimetallism, and the regulation of the various forms of metallic and paper currency; and on the banking side I discussed the functions of commercial banks in creating bank notes and deposit currency, the problems of regulation in the United States, and the superiority of European central bank systems. Finally, I gave them the "true theory" of the relation of money and bank currency to prices.

But I found the subject a somewhat difficult one to teach—on the whole, rather dull and uninteresting to the students. Whether this was attributable to the fact that in the elementary course in economics they had already been set straight on the functions of money, bimetallism, bank credit, and the quantity theory, or whether the exposition of the inherently practical and fascinating field of finance had fallen into an academic and unrealistic form, I have never quite made up my mind. In any event my students were never sufficiently thrilled over this

course to cause me any regrets when in due time I was led to undertake a reorganization not only of the course in money and banking but also of the entire field of finance.

My first experiment was an attempt to make a general course in money and banking serve as a satisfactory prerequisite to advanced studies in the field. In brief, my experience convinced me that many of the specialized advanced courses in the field of finance could not well be built upon the traditional introductory course in money and banking—owing to its extremely limited scope. Moreover, the traditional course seemed, to my students at least, highly academic and without much practical relation to real business and financial affairs, except here and there in particular sections, such as those dealing with the practical operations of a commercial bank and the nature and purpose of the Federal Reserve System. So considerably have I subsequently changed the scope of the general-survey course that I feel it necessary to lay especial emphasis upon what I now conceive to be the limitations of the traditional treatment of money and banking.

I. SHORTCOMINGS OF THE TRADITIONAL TREATMENT OF MONEY AND BANKING

The place of money and banking in the orthodox treatment of political economy may be briefly set forth somewhat as follows: Economics is divided into the four broad divisions of consumption, production, exchange, and distribution. Human wants constitute the point of departure, the desire for consumptive goods being the mainspring of human activity and productive effort. Then are discussed the fundamental factors of production—labor, land, capital, and management. Having gotten the goods produced and on the market, the problem of evaluation for the purposes of exchange arises, and this leads to a discussion of the laws of value. Speaking of exchange, one is reminded that money serves as a standard in which exchange values are expressed and a medium by which the ownership of goods on the market is transferred. And speaking of money as a medium, one

must also note that there are various kinds of money, among them being bank money, both notes and deposit currency. Having gotten these goods produced and exchanged, it is next in order to consider the division of the social dividend among the various agents of production,—land, labor, capital, and management, respectively. In elucidating the principles of economics in accordance with this division of the subject matter, most writers leave the impression that money is largely, if not wholly, divorced from the productive process.

Some writers, it is true, relate money to the productive process by including in the classification of utilities, *possession* utilities. As goods are not fully produced when they leave the factories or the farms, they must be transported, hence *place* utility; they must often be stored, hence *time* utility; and, finally, their ownership must be transferred in the market place, hence *possession* utility. Money as a medium of exchange—for the transfer of ownership—thus serves in the final stage of the complex productive process. But the text which indicates that in this way money plays a direct part in production still leaves the relation of money to economic organization anything but adequate. The analysis would indicate that money is of service only in the last stage of the productive process, in connection with the exchange of finished goods between producer and consumer. What is not deducible from such analysis is that money is also the means of organizing production, of bringing together the various agencies of production (land, labor, capital, and managers), and fusing them into a business organization that can turn out a product capable of ministering to human wants.

Society is now organized on a pecuniary basis, and money is the indispensable prerequisite to the assembling of the concrete instruments of production. The business man uses money, or its equivalent, to purchase materials for the construction of his factory; he uses his money in buying the supplies and materials necessary for its equipment; he bids competitively in the markets of the world for the raw material used in the process of manufacturing; and he employs money as a means of attract-

ing to his organization the requisite labor force and corps of administrative officials. In short, every act of the productive process itself revolves about the use of money. There is, of course, nothing particularly new in this statement of the case. What is interesting is that the writers of general treatises on economics have usually regarded it as unnecessary to make any mention of the part that money plays in the organization of productive activities, thereby giving the whole subject a very imperfect as well as unrealistic presentation.

The special treatises on money and banking which follow the traditional conception laid down in the general texts—that money is used in *exchanging* goods produced through the united effort of land, labor, capital, and management—in similar fashion make no reference to the part that money plays in the organization of productive activities. In connection with the function of money as a common denominator of value, the current statement is that the existence of a common denominator or standard of value saves the individual the necessity of burdening his weary mind with innumerable exchange ratios. This method of stating the significance of the common denominator of value results from the traditional practice of discussing money only under the heading of "exchange."

But when one shifts the point of view from the significance of money in exchanging consumptive goods that have already been produced to the part that a common denominator of value, or pecuniary unit of calculation, plays in the organization of productive activity, it becomes readily apparent that money in this capacity also plays an extremely important rôle in the field of production. The truth is that without a common denominator of value—or pecuniary unit—it would be impossible to keep financial accounts or to give commensurability to unlike units of consumptive goods, capital goods, labor power, what not. Without the pecuniary unit all other units of measurement would be valueless for the purposes of business. As a qualitative unit of measurement, the dollar serves as a guide to the business man in the development of new methods and new technique—in a word,

in the making of the innumerable decisions which he must render from day to day. The price-and-profit system based on the pecuniary unit serves as a guide in the directing of labor and capital from place to place and from industry to industry. Accounting systems based on the dollar unit also make possible governmental supervision and control of industrial affairs (see chap. i). All this finds no place, however, in the traditional discussion of the rôle of money in economic activity, despite the pretension that the analysis is disclosing the way in which society has organized itself for the production of wealth.

In connection with the standard of deferred payments, somewhat more attention has been given to the relation of money to business activities in the field of production. For it is not infrequently pointed out that a poor standard of deferred payments is a great deterrent to business enterprise, owing to the increased business risks that result therefrom. But even in this case the relation of the standard of deferred payments to the conduct of business is usually treated as an incidental feature. The emphasis is rather placed upon the relation of the standard of deferred payments to prices. And in discussions of the price level the emphasis is placed upon the equities between debtors and creditors in connection with long-time borrowing operations and upon the effects of changing prices upon the various classes of the community. The question of just distribution is apparently the primary consideration, while the importance of a stable standard from the standpoint of production is scarcely noted.

The problems of securing a stable standard of deferred payments, and the maintenance of the various forms of token and representative currency at a parity with this standard, have been among the most fascinating inquiries in the whole realm of political economy and by many have come to be regarded as about the only significant financial issues that need concern the economist. As a professional friend of mine once said: "The economist's problem is the price problem. Why should he therefore concern himself about other financial issues?" The obvious

answer is that it is only one of the many problems of vital interest to the economist who would understand the significance of money in industrial society. The perennial controversies that have raged about the relation of money to prices have, however, tended to shift the emphasis away from other important monetary considerations and to obscure the rôle that money plays in connection with the organization of economic activity.

So much for the shortcomings of the traditional discussions of money. My efforts to organize a general-survey course in money and banking revealed an even greater difficulty or weakness on the banking side. For, as already indicated, the emphasis upon money and its relation to prices has led to confining the discussion of banking to commercial banking only—this for the reason that commercial banking alone provides, in bank notes and deposit currency, media that are acceptable in exchanging goods. In consequence, the whole discussion of banking, with the exception of a brief section devoted to financial panics, has usually centered around the maintenance of the parity of bank currency with gold, the function of bank currency in exchanging goods, and the relation of bank credit to prices. I trust I will not be understood as objecting to such discussion; my point is merely that this narrowing of the scope of banking has rendered the traditional treatment of finance quite inadequate for the purposes of the business curriculum or, for that matter, for the purposes of the general economics curriculum. For example, one repeatedly finds the doctrine that the commercial bank should (properly) function only in connection with commerce—with the marketing process, whereby the economic gap between producer and consumer is bridged. This is not only inadequate theory; it embodies a fundamentally erroneous conception of the nature of the modern business and financial organization.

II. SHORTCOMINGS OF MY COURSE IN "FINANCIAL INSTITUTIONS"

The numerous financial agencies and institutions other than the commercial bank which are found in modern economic soci-

ety did not naturally fall within the scope of this traditional theory of the rôle of money and banking in the economic system. Accordingly, we usually find only incidental reference to them, either in the general texts on economics or in the special works in the field of money and banking.[1] It was not surprising, therefore, that one should find, as I did, that the traditional study of commercial banking did not serve as an adequate basis for a survey course in the financial field. Somehow or other, the large number of other financial institutions and agencies which had grown up in modern times and which are made use of by the business man of today must be brought into the picture. I therefore conceived the idea of a general-survey course which was designated "Financial Institutions."

In brief, the idea of the course on "Financial Institutions" was to disclose to the student the nature and the functions of all the financial agencies and institutions that exist in the modern world. Money, in its various functions, was considered—as also the work of commercial banks, savings banks, investment banks, insurance companies (in their banking aspects), the stock exchanges, etc. But the difficulty here was that one was tempted either to include within a single course everything that had been discussed in the whole series of specialized courses in the various divisions of finance—a task to be despaired of—or else to make the course a very elementary one, designed merely to give the student a bird's-eye view of financial problems and of the financial system in general. There was, indeed, grave danger that it would be of so elementary and fragmentary a nature as to be sadly wanting in genuine intellectual content.

Experience showed that what was really needed was not a series of discussions of the several financial institutions in turn, but an analysis which would reveal the broad outlines and the significance of the financial system conceived as a unit and as an integral part of the general economic organization. The individual financial institutions all needed to be related in some

[1] In recent years, however, there has been a tendency for writers of special treatises to devote some attention to savings banks, etc.

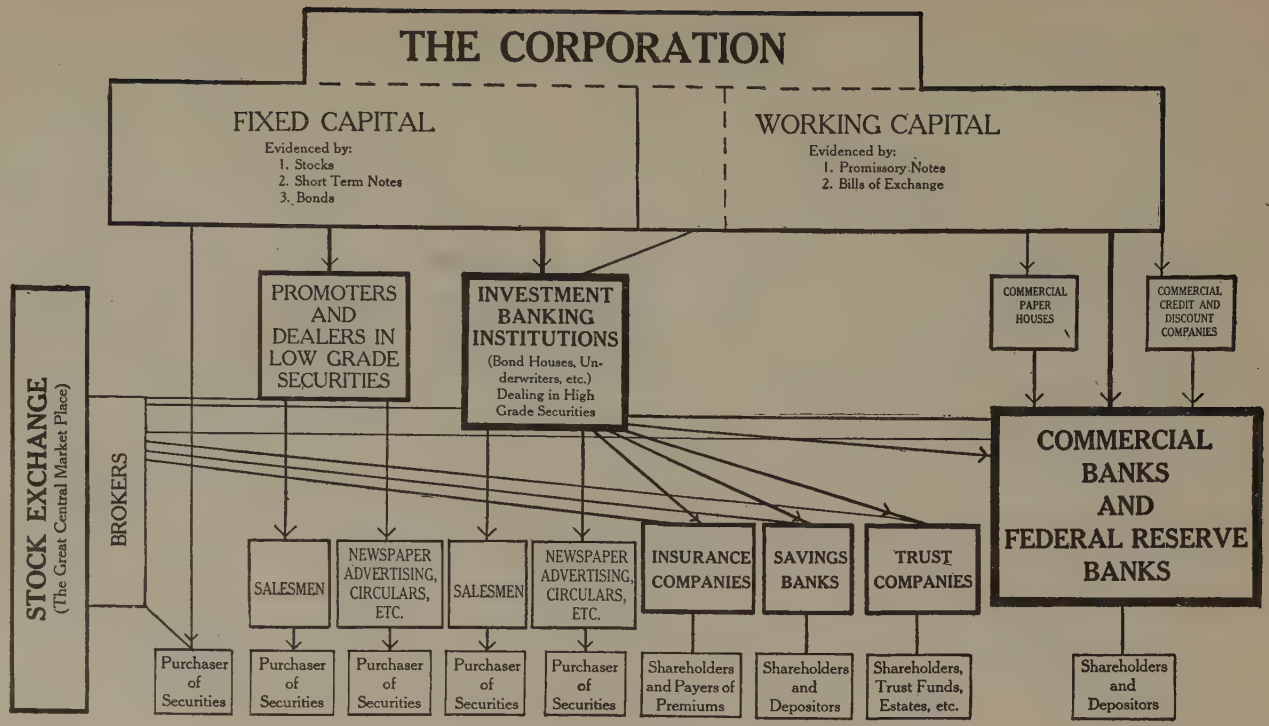
fashion as parts of a general financial structure. The tie that binds must somewhere be sound if a general-survey course in finance were to be worthy of the name. This discovery explains the change of emphasis from financial institutions to financial organization.

III. THE DIFFERENCE BETWEEN FINANCIAL ORGANIZATION AND FINANCIAL INSTITUTIONS

In a treatise on financial organization the various financial agencies and institutions are still described; but their relations one to another as parts of a larger financial structure, and the general setting of this financial system within the larger economic organization, are also disclosed. A diagrammatic presentation of that portion of the financial structure which is related to corporate enterprise is shown on the accompanying page.

The purpose of this diagram is to indicate that in a capitalistic, pecuniary, society all of the financial institutions and agencies which exist have been developed for the purpose of facilitating the raising of the capital (funds) required by modern business enterprises. For purposes of exposition this capital is divided into fixed and working capital. The fixed capital is raised through the sale of stocks, short-term notes, and bonds—the funds being derived from the ultimate purchasers of these securities, that is, from the rank and file of individuals and investing institutions. Sometimes the purchaser of securities is reached directly, without the help of any financial intermediary; sometimes he is reached through promoters and dealers in low-grade securities; and sometimes through investment banking institutions dealing in high-grade issues. These institutions in turn utilize salesmen, newspaper advertising, circulars, etc. And insofar as securities are purchased by insurance companies, savings banks, trust companies, and commercial banks, these institutions serve as secondary intermediaries between the furnisher of the funds and the borrowing corporation.

The stock exchange appears at one side as a great, central


THE CORPORATION
FIXED CAPITAL
Evidenced by:
1. Stocks
2. Short Term Notes
3. Bonds
WORKING CAPITAL
Evidenced by:
1. Promissory Notes
2. Bills of Exchange
STOCK EXCHANGE
(The Great Central Market Place)
BROKERS
PROMOTERS AND DEALERS IN LOW GRADE SECURITIES
INVESTMENT BANKING INSTITUTIONS
(Bond Houses, Underwriters, etc.)
Dealing in High Grade Securities
COMMERCIAL PAPER HOUSES
COMMERCIAL CREDIT AND DISCOUNT COMPANIES
COMMERCIAL BANKS AND FEDERAL RESERVE BANKS
SALESMEN
NEWSPAPER ADVERTISING, CIRCULARS, ETC.
SALESMEN
NEWSPAPER ADVERTISING, CIRCULARS, ETC.
INSURANCE COMPANIES
SAVINGS BANKS
TRUST COMPANIES
Purchaser of Securities
Purchaser of Securities
Purchaser of Securities
Purchaser of Securities
Purchaser of Securities
Shareholders and Payers of Premiums
Shareholders and Depositors
Shareholders, Trust Funds, Estates, etc.
Shareholders and Depositors

market place, alike for securities that have once passed through the hands of financial middlemen to purchasers, and for securities that have not been finally absorbed by the investing public but are still being carried in the speculative market. The transverse lines connecting the stock exchange with the purchaser of securities and with other financial institutions are designed to suggest that interrelations exist between these institutions. It will be noted, also, that the diagram indicates that some of the funds derived from the sale of stock, short-term notes, and bonds are used for working-capital purposes. (Note the dotted line through the working-capital side of the chart.)

On the working-capital side, the chart indicates that corporations borrow funds for operating expenses from commercial banks—much of it directly, but some of it indirectly through the intermediation of commercial paper houses and commercial credit or discount companies. The transverse lines connecting the commercial banks and the Federal Reserve institutions with investment banking institutions and the stock exchange are designed to indicate interrelations in the financial system, some of which will presently be discussed.

For the moment, what needs emphasizing is that these financial institutions are all engaged in a common task of transferring the funds of the ultimate savers of society listed at the bottom of the diagram to the borrowing corporation which is placed at the top! Together these institutions constitute a financial structure; they make up the component parts of the modern financial system about which all economic activities center—on the basis of which industrial society is organized.

The advantage in organizing a survey course in finance around this central problem of raising fixed and working capital for modern business uses is that one may thus see at a glance the relation of the individual business to each and every part of the financial system. The modern business has its setting in the midst of a financial system upon which it is at all times and in manifold ways dependent; and a sound financial policy can be formulated only in the light of knowledge of the services ren-

dered by each of the financial agencies and institutions and of the working of the financial system in general.

In such a survey course I have found it possible to show the functional origin of the various separate financial institutions, and their interrelations one with another as parts of a financial system, without exhausting the subject matter in any particular division of the field. For example, while the course touches upon the problems of corporate finance, insofar as it discusses the forms of credit instruments and the financial institutions that may be utilized by a business man in raising capital, it makes no attempt to discuss in detail the best method of financing for particular corporations under specified conditions. It does, on the other hand, make possible the giving of an advanced course in corporation or business finance where the instructor may take it for granted that every student in the class knows the general distinction between fixed and working capital, between bonds and the various types of stock, and, more important, knows something of the services that are rendered by the numerous types of financial institutions upon which the financing of business is dependent.

Similarly, a course on the stock exchange or on brokerage may proceed from the assumption that the students already have some knowledge of the organization of the stock exchange and the place that it occupies in the general financial system. And so, also, in each of the advanced courses in finance it will be found that the students have a common background of information and a general view of the relation of the particular part of the financial system which they are to study in detail to the financial system in general.

From the point of view of advanced courses in economics, as distinguished from those in business administration, the same consideration holds. If all the students have had a general-survey course in finance such as is here suggested, it is no longer necessary to spend several weeks in each advanced course on elementary topics or else shoot over the heads of a considerable portion of the class.

Quite as important is the elimination of duplication that is made possible in advanced courses. Who of us has not, either as student or teacher, in the field of finance as well as in other divisions of the economic and business curriculum, been appalled by the amount of duplication that occurs? All will of course agree that some duplication is both inevitable and beneficent. But the recognition of this fact by no means warrants more than a mere fraction of the duplication of effort that has characterized instruction in economics ever since the multiplication of courses began.

For example, as a student I took a course in money, which of course included a discussion of the controversial issues on the relation of money and prices. Such a discussion inevitably raised the question of bank credit and thus required on the part of the instructor a more or less detailed discussion of banking operations and the phenomenon of credit currency. Then later I took a course in banking, where special emphasis was placed upon the problem of banking reform. So far as I was concerned, there was no need in this course of discussing again the details of banking operations and the phenomena of bank credit. But about 50 per cent of the class had not had the course in money, just as when I took the course in money about 50 per cent of that class had not previously had the course in banking. In consequence, it was necessary for the instructor in both courses to discuss the general principles of banking and credit. Still later I took a course in crises and depressions. In the course on banking I had perforce studied in some degree the problems of financial crises and panics; but since a considerable percentage of the class had not had the course in banking, their minds were a complete blank so far as the phenomena of the business cycle were concerned. Thus here, as in each of the other cases, the level of instruction had to sink to the level not of the minimum intelligence but of the minimum previous training of the members of the class. I think it is no exaggeration to say that one-third of the time of the class was wasted in needless duplication which could have been avoided by a general-survey course

embodying material common to each of the courses appropriately lying in the field of more advanced study. A general-survey course makes it possible for the advanced courses to be really advanced.

IV. THE RELATION OF FINANCIAL ORGANIZATION TO ECONOMIC ORGANIZATION

In the foregoing discussion reference has been repeatedly made to the relation of the financial system to the general economic organization, and the statement has been made that modern industrial society is financially organized and controlled. How, specifically, is the modern financial structure linked up with the general economic organization, and how, concretely, does it control the economic system? One answer to this problem has already been suggested in connection with the rôle that the pecuniary unit and the price system play in the organization of economic activities. Another is to be found in the interrelations of finance with the problems of the business cycle.

Until recently courses on money and banking have characteristically attached relatively little importance to the business cycle. True, there has usually been a chapter devoted to a discussion of the events of a financial panic and the devices that are necessary to prevent the periodic breakdown of the financial machinery. But there has seldom been any attempt to link up the whole problem of banking and finance with the phenomena of the business cycle, conceived as the normal condition of industry. Financial theory, like general economic theory, has usually been predicated upon relatively static conditions, as though labor and capital were commonly fully employed, with the industrial machine running with relatively little friction—save when some panic or financial cataclysm, like an earthquake, breaks out and rudely shakes the foundations of the whole financial structure. We shall not get very far toward an understanding either of the financial or the economic system until we recognize, with Mitchell, that "in the real world of business, affairs are always undergoing a cumulative change, always pass-

ing through some phase of a business cycle into some other phase. . . . . In fact, if not in theory, a state of change in business conditions is the only normal state."

The truth is that the entire economic system is inextricably tied up with the general financial and credit system. Borrowing corporations not infrequently find that the supply of credit both for fixed and working-capital purposes is inadequate for their requirements—either because of an insufficient volume of saving, an outflow of reserve funds from the country, an increase in the volume of business beyond the credit capacity of the banks, or a rising price level which requires a steadily expanding volume of liquid capital with which to effect a given volume of production. And because of the phenomena of the business cycle there are times when the entire business and credit structure is completely disrupted, resulting in unemployment for millions of persons and financial failure for thousands of business concerns whose only fault lies in being unfortunately placed in the economic system.

Business corporations and individual workers are dependent upon the smooth functioning of the credit system not merely for the regularity of profits and wages; as investors in corporate securities they are also dependent upon it for the safety of their savings and the perpetuity of interest payments. Literally almost every individual and every institution is, under modern conditions, vitally interested, as an investor, in the efficient working of the financial system. Corporations and other business concerns are obliged to invest reserve and sinking funds in the securities of other corporations; banks, insurance companies, clubs, educational and charitable institutions, labor-union organizations, and trust estates—all are of necessity holders of corporate securities; and, under a pecuniary order, the individual laborer or salaried man can effect the savings required for sickness and age only through the investment of pecuniary income, directly or indirectly, in the bonds and shares of corporate enterprises. To a greater or less degree all classes of society are thus dependent upon the efficient functioning of the pecuniary

mechanism. And the entire financial and economic system is bound up with the phenomena of the business cycle, which is itself a result of the evolution of the modern pecuniary credit system. An adequate discussion of either the modern financial system or the modern economic system must therefore be based upon and constructed around a discussion of the business cycle.

V. SOME PEDAGOGICAL ISSUES

Some teachers may at first thought feel that the volume should have included a thorough discussion of so important and vital a subject as the relation of money and credit to prices. A word of explanation is therefore in point. In chapter ii there is presented a very brief statement of the relation of money and prices. The emphasis is, however, not placed upon the causes of price changes; it is merely pointed out that the values of goods are expressed in terms of money and that these money prices fluctuate widely and more or less continuously. Now the reason for not entering into a discussion of the causes of price changes at that place is merely that the price question cannot be intelligently discussed until an analysis of the commercial banking system has been made; and by the time the analysis of the commercial banking system, including its relation to other financial institutions and to the general business organization as conditioned by the phenomena of the business cycle, was completed, limitations of space did not well permit an adequate discussion of this most vital aspect of the modern financial system. The controversial issues with reference to the relation of money to prices are therefore necessarily left for consideration in advanced courses. It is believed that enough data bearing on the price question are presented in the treatise for the purposes in hand. If, in the view of any teacher, such is not the case, the text material may be readily supplemented by lectures and by collateral reading.

Another and more general pedagogical issue may be raised in connection with this general-survey course. Is it possible in a survey course in finance to give more than a smattering of fac-

tual material with reference to each part of the financial system and other than a confused picture of the system as a whole? And would it not be better to give, first, a series of special courses in each division of finance, rounding out the curriculum at the end with a course broadly conceived and designed to tie together the various financial courses previously studied, and to afford the student a clear understanding of the nature of the modern financial system and its relation to the general economic organization?

With reference to the first question, it will be noted that it is the question that has so often been raised in connection with the general-introductory course in economics. Can one thus give anything besides a modicum of unrelated factual material? Does the student come out of the introductory course in economics with any real appreciation of the nature of the modern industrial system? Would it not be better for him to take, first, a series of special courses in each of the various fields of economic inquiry? It is quite unnecessary for me to discuss these time-honored issues. The fact that practically all American institutions still hold to the practice of giving a general-introductory course—of one sort or another—is sufficient to indicate where the concensus of opinion still lies.

Now, if it is possible in the introductory course in economics to give the student a general survey of the economic system, it should be considerably easier to give him a significant view of the financial part of the economic system before he has taken detailed courses in the various divisions of the field. My experience in giving a general-survey course in finance has been that there are no serious difficulties involved.

With reference to the second question, whether a general course in finance should not be given at the end of the student's training in that field, it seems to me that there is sound argument for such a procedure—not, however, in lieu of a survey course at the beginning, but as supplementary to such a course; just as I feel that there is sound argument for a correlating course in economic theory and another in business organization

at the conclusion of one's general training either in economics or business.

VI. SOME BY-PRODUCTS FOR THEORY

In conclusion, it may be of interest to know in what ways the development of a course and treatise on *The Financial Organization of Society* has modified my own views about certain theoretical issues. Space does not permit more than a mere outline of certain conclusions.

In the first place, I have come to believe that the traditional distinction between fixed and working capital, while pedagogically valuable as a point of departure, has little fundamental validity. Funds derived from the sale of stocks and bonds are used for working-capital purposes, as well as for the creation of plant and equipment; and funds derived from the sale of promissory notes and bills of exchange are often used for fixed-capital purposes. Moreover, it is not merely the funds derived from the sale of stocks and bonds that are used permanently or continuously in business; a large portion of the funds borrowed through the use of promissory notes and bills of exchange is also used continuously by businesses—since any going concern must have a continuous supply of working or operating capital, much of which, under modern conditions, is continuously borrowed from commercial banking institutions. The only significant distinction therefore is between the constant capital of a business—including both the fixed capital and that used for operating purposes—and the variable supply, that is, the supply which fluctuates with seasons and with cycles of business. Moreover, the traditional theory that commercial banks do (or should) furnish funds only for extraordinary peak loads is absurd.

In the second place, I have been forced to conclude that the conception of commercial banking which assumes that the function of the commercial bank is only to create media of exchange for use in the marketing of goods is altogether inadequate and misleading. The fact is that commercial banks extend credit for the producing of raw materials and the manufacture of them

into finished commodities as well as for the exchanging or marketing of finished goods. But even more significant is the fact that the commercial banking system occupies a dominant position in the entire financial and business structure. Bond houses, insurance companies, savings banks, and trust and mortgage companies, all look to the commercial banking institutions for accommodation in case of need; they are dependent upon the solvency of the commercial banking system for the safety of their deposited funds; and they are dependent upon the lending power of the commercial banking institutions for the conduct of their business from day to day. An inadequacy of commercial banking funds means a direct lessening of the underwriting activities and other operations of investment bankers; it means an impairment of the ability of the savings institutions and of the insurance companies to meet their financial engagements and obligations; and whenever there is a breakdown of the complicated commercial banking mechanism the entire financial system is thrown completely out of gear.

Not only does the commercial banking system constitute the center of the entire financial structure, but it lies as well at the base of all modern business operations. Every business concern, practically speaking, is dependent directly or indirectly upon the commercial banks both for the safety of deposited funds and for a continuous supply of borrowed capital—both fixed and working capital. Any failure of the commercial banking system to function normally, therefore, has its direct effect upon every phase of financial and business activity. Commercial banking thus does something more than to supply exchange media and to facilitate the marketing of goods without the use of money. It controls and conditions all business activities; it is the foundation of the whole complex financial and economic organization of modern society.

Finally, the conception of commercial banking in its relation to the entire economic system that has just been outlined has led to a very considerable modification of my views in the matter of price theory. When one conceives the price problem

as merely one of comparing the total quantity of goods in the market with the quantity of circulating media available for exchanging them, he arrives at certain conclusions. When one considers the relation of commercial banking to productive and financing activities, to the rest of the financial system, and particularly to the phenomena of the business cycle, he is, I believe, certain to find that new light will be shed upon all the controversial issues of monetary theory.

CHAPTER I

THE NATURE AND FUNCTIONS OF A PECUNIARY UNIT

The complex social and industrial system of the present day is commonly said to be organized on the basis of a pecuniary unit of calculation called, according to the country, the dollar, pound sterling, franc, mark, ruble, etc. In this chapter it is our purpose to consider the precise nature of the monetary unit and to disclose the various ways in which it is of service to society. It will help to avert misunderstanding on the part of the reader if it is stated at the outset that the function of a pecuniary unit of calculation is quite different from that of a medium of exchange, discussion of which is reserved for the third chapter.

I. DEFINITION AND ORIGIN OF THE PECUNIARY UNIT

The significance of the monetary unit may best be appreciated if it is thought of as a certain definite weight and fineness of metal. For instance, the unit in the United States (the gold dollar) is composed of 25.8 grains of metal, of which nine-tenths is gold and one-tenth is copper. How this particular amount of metal came to be chosen as the unit need not be considered here. It is sufficient for our present purposes to know that Congress is not much more likely to change the weight and fineness of the dollar than to change other units of measurement, such as the pound, foot, gallon, etc. It may also be noted in passing that this monetary unit does not necessarily circulate in the form of currency; indeed, it need not be coined at all. The American gold dollar, for example, is not coined because it would be too small for convenience in the channels of circulation.

The pecuniary unit is a sort of language device.—To understand the functions of this pecuniary, or calculating, unit, it will

be well to regard it as a sort of language device, a final step, as it were, in the development of means of communicating ideas. Because of restricted vocabulary primitive man found great difficulty in exchanging ideas with his fellows, with a result that both intellectual and material progress were seriously retarded. Trading operations were early impeded, moreover, not only because of inadequate *word* symbols for the communication of ideas, but also because of the lack of *numerical* symbols for reckoning quantities. It was necessary for a system of notation to be developed before trading could be conducted on any considerable scale; for it is apparent that without a means of quantitative measurement of the goods to be purchased or sold, the risk involved in trading operations would be so great as to prevent all except the simplest transactions.

But the development of a system of notation was not sufficient of itself to lay the basis for extensive trading operations. A still further step in the development of the language of trade and business was necessary, namely, that of expressing a variety of quantitative units in terms of some qualitative, or value, unit. It is very difficult to trade yards of cloth for tons of coal, or bushels of wheat for skins of animals, without some means of reckoning the relative values of physical quantities of unlike goods.

It is probable that the use of money as a pecuniary unit, in terms of which the values of unlike quantities are measured, developed earlier than its use as a medium of exchange. The word "pecuniary" comes from the Latin word for money, *pecunia,* and it is generally allowed that *pecunia* is derived from *pecus,* meaning cattle. Now cattle were probably not used as media of exchange; one would suppose, rather, that since their approximate value was a matter of common knowledge during the pastoral stage of economic development, cattle served merely as a means of measuring values.[1] Among barbaric tribes wealth has

[1] "But now Zeus, son of Kronos, took from Glaucus his wits, in that he made exchange with Diomedes, Tydeus' son, of golden armor for bronze, the price of fivescore oxen for the price of nine."—*Iliad* vi. 118, Lang, Leaf, and Meyers' translation.

often been expressed in terms of shells, precious stones, skins, or whatever commodity was most widely known. Wherever they were found in sufficient quantity the precious metals, gold and silver, naturally came to be used for the same purpose. But gold and silver, shells, etc., unlike cattle, were also serviceable as media for effecting actual exchanges of goods. It would seem that the use of money as a medium of exchange was necessarily of later development than its use as a common denominator of values; for it is difficult to conceive of an exchange of goods for money where there had not already been a pre-existing evaluation of the goods in terms of a pecuniary unit.

In any event, the development of a pecuniary unit gave the necessary commensurability to pounds, quarts, and bushels—and to wheat, cattle, and cloth—and was thus one of the most significant developments in history. It was the final vital step in the evolution of means of communicating ideas. It made language and numbers intelligible for the purposes of business.

II. THE PECUNIARY UNIT AND BUSINESS ADMINISTRATION

We have been saying that without a unit for measuring values exchange operations are very difficult and involve large risks. We shall now see that a pecuniary unit is of the greatest importance from the standpoint of efficient production. Let us take a simple case and endeavor to ascertain the difficulties that would arise in the conduct of a business in the absence of a pecuniary unit such as the dollar.

Mr. X is a manufacturer. He finds that he has 10,000 yards of finished cloth on hand, 12,000 pounds of raw cotton in his warehouse, and 5,000 yards of cloth in process of manufacture. He has supplies in his shop, consisting of so many gallons of oil, rolls of packing, etc. He has a building that is 100 feet long and 60 feet wide, with two stories, each 14 feet high. The building is made of reinforced concrete material. His power and heating plant is five years of age, with five years of wear remaining. He owns two delivery wagons and four horses, all somewhat the

worse for wear and tear. He manufactures 50,000 yards of cloth per year, of which 30,000 yards are of grade A, 10,000 yards of grade B, and 10,000 yards of grade C. Without a means of measuring all these units in terms of a common denominator of value, it is apparent that it would be impossible for Mr. X to ascertain from his books whether his business is successful or unsuccessful. It is also obvious that the chances of failure would be very great.

The choice of a business is determined by analysis of pecuniary accounts.—Let us now inquire how Mr. X came to choose this particular line of business. Having capital at his disposal, he naturally would wish to employ it in that line of industry which would yield him the largest income. Let us assume that at the period when Mr. X must decide where to invest, the typical establishment is receiving a return of 5 per cent on the capital invested in line A; 10 per cent in line B; 15 per cent in line C; and 20 per cent in line D. If other things were equal, Mr. X would as a matter of course choose line D. But other things are not usually exactly equal. There may be more risk involved in line D, and hence a greater chance of failure in the event of untoward developments. It may well be, however, that the risks in line D are not proportionately greater in line A and line B. The demand for the produce of line A may have been declining, or perhaps D is at present enjoying an extraordinary demand. In either event, a larger margin of profit can for the time be secured in line D than in line A. Since Mr. X is looking for employment of his funds in the most profitable branch of industry, he will therefore be likely to choose line D, providing of course there are no personal reasons which might prevent his success in that line.

The question now arises, how can the business man ascertain the rate of profits in different industries? In brief, by a study of the general market conditions in the different industries and of the financial returns actually received by existing plants in the various lines of industry. The quotations of securities on the stock exchange serve, as we shall later see, as a fairly reliable

index to the relative profits of different industries. In case, however, one is thinking of venturing as a pioneer into a new line of industry, he can of course rely only upon a study of general market conditions. But in any case the estimated relative costs of production in this and other lines will serve as an important index to the probabilities of success.

It should be noted at this point that the decision of the business man is more or less controlled by financiers who advance the funds required to finance the industry. The typical business is nowadays organized on a corporate basis, and the fixed capital is largely raised by the sale of bonds and stock through the intermediation of investment bankers, whose support is necessary to the success of the enterprise. Investors also study, with the aid of pecuniary accounts, the prospective value of the securities, and since investors hold the purse strings, they have the power to veto the judgment of both the financiers and the corporate managers.[2]

After the fixed capital has been raised and the plant constructed and equipped, it is usually necessary to borrow some of the working capital required to operate the business. Financial aid must now be sought from commercial banks; and the commercial banker thus in turn passes judgment on the feasibility of the enterprise. And once more the financial standing of the business, as shown by accounts that are expressed in pecuniary terms, affords the criterion for reliable judgment.

Managerial decisions are rendered on the basis of pecuniary data.—In connection with the construction of the plant, there are numerous decisions which must be rendered. In the building of the manufacturing establishment there is, for instance, a question of the types of materials to be used in the construction. Shall it be of wood, of steel, or of concrete? The cost of each, the varying rates of fire insurance with the respective types of materials, the relative durability for the purposes in hand of the different materials, all must be taken into consideration. And in

[2] See chaps. xii and xiii below.

every case the decision revolves around the question of costs, computed in terms of dollars.

Similarly, in equipping the establishment, there is the choice between machine A and machine B. Machine A costs $1,000; machine B costs $1,200. Machine A, however, would turn out only three-quarters as much product as machine B. On the other hand, machine A would require $50 more per year for maintenance; while machine B would last five years longer. The problem of deciding which type of machine to use under these conditions is not a simple one at best. But it is much simpler by virtue of the dollars-and-cents computation that is possible than it would be in the absence of any such guide.

Let us suppose that the decision is for the purchase of machine B. Two years later a new machine is put upon the market, which can perform the same work at one-half the cost per unit of product. Machine B has, however, ten years of wear remaining in it. Should it be discarded now as obsolete, or should it be used until worn out? There is here involved a delicate balancing of costs; and a decision necessarily carries with it a certain element of risk. But again it is clear that the pecuniary basis of reckoning greatly lessens the chances of error and thereby increases the probability of business success.

This factory employs a large number of laborers. The management finds that there is a possibility of a considerable substitution of machinery for labor. The question arises, When is it wise to substitute machinery for labor, or vice versa, as the case may be? The decision is made, as in the other cases, on the basis of pecuniary calculations.

Or it may be that the question is not one of machinery versus labor, but one of methods. Shall a new system of office management be installed? Shall trained technical men be employed to work out new processes in the various parts of the industry? The business man attempts to compare the costs of such technological aids with the returns from the improvements that accrue. There is again some risk of loss involved, but by and large

the cost computation points the certain way to improvements in methods and efficiency.

Instances of this sort might be multiplied indefinitely. In fact, virtually every decision that is made by the business manager today involves a careful consideration of costs and returns; practically all of modern business is organized on the basis of pecuniary computations. The enormous size of the business unit nowadays, together with the complex relationships that obtain between the business man and those from whom he buys his materials, on the one hand, and, on the other, those to whom he sells, requires not merely the keeping of records of transactions that are entered into; it necessitates the development of elaborate financial accounting systems from which cost-and-profit data may be obtained. It should be repeated here that without the monetary unit accounting records would be lifeless; while with the dollar unit the business man may use his accounts both as an indication of past business achievement and as a guide to future courses of action.

In the preceding paragraphs we have been considering the relation of the monetary unit to the problems that arise in connection with the administration of any given business. Let us now assume that, owing to the stress of competition or to a declining demand for the products of a given industry, the manager decides that he should leave this industry and go into something else.

The manager is now confronted with the task of making the transfer with a minimum of loss. It should be borne in mind that since the industry as a whole is in a declining state, the establishment cannot readily be sold to someone else. He must either (*a*) convert an establishment that manufactures commodity X into an establishment that manufactures commodity Y, or (*b*) completely dismantle the existing establishment and erect an entirely new plant, adapted to the production of commodity Y. In case he is forced to choose the latter alternative the problem arises, Should the plant be dismantled at once and the large amount of fixed capital in the form of building and equipment

be scrapped at a heavy loss, or should it continue to be used in this line of production until worn out? In the latter event the yearly profits would be set aside with a view to the subsequent erection of a plant for the manufacture of commodity Y. With this problem before him, the business man must compare the losses involved in scrapping his present fixed capital with the added profits that might be gained from an earlier development of the plant for the manufacture of commodity Y. Relative costs, expressed in terms of the dollar unit, again serve as the guide to action; although, as before, such guidance does not enable the decision to be rendered with absolute precision.

In case the plant is of such a nature that it does not require complete dismantling, if it is one which can be rehabilitated for the purpose, the process of shifting industrial production is somewhat simpler, though it still involves questions of technical engineering, construction, and administration. As before, however, the decision concerning the best method of making the necessary changes and the rapidity with which they should be accomplished rest on cost computations expressed in terms of money.

III. THE PECUNIARY UNIT AND THE APPORTIONMENT OF FAMILY EXPENDITURES

Not only does the pecuniary unit lie at the basis of business organization; it is also the basis for an intelligent apportionment of income. When family incomes, which in a pecuniary society are initially received in the form of money rather than in the form of goods, are carefully considered, a formal budget is prepared by means of which the income is apportioned in such a way as to bring the largest satisfaction of family wants.

Let us assume, first, a family income of $150 per month, an income sufficient to buy only the ordinary necessities of life. This $150 must provide for food, clothing, shelter, light, heat, and miscellaneous expenses. Since this income should be so apportioned among these various needs that the family will enjoy the largest measure of comfort, the expenditure in each direc-

tion must be considered in comparison with the expenditures in every other direction. Will $50 for rent and $100 for the remaining necessities give as large a measure of satisfaction as $25 for rent and $125 for the remaining items? Should $75 be spent for food and $20 for clothing, or should it be $85 for food and $10 for clothing? The arrangement of a family budget in this fashion is difficult enough at best, and precision in measurement is of course not to be expected. The dollar unit, however, provides a rough measuring stick by means of which a larger satisfaction may be derived from a given income than would otherwise be possible.

With an income of $1,000 a month the problem of family expenditures is in some ways less difficult, because the adequacy of the income to meet the bare necessities of life is no longer in question. From another standpoint, however, it is more difficult, because a wider range of expenditures for luxuries is now possible. After necessities are provided for, how shall the remainder be spent? Shall it be for a chair, a picture, or other household decoration? Shall it be for more extravagant clothes, for a pleasure trip, or for a new automobile? The family would no doubt prefer to enjoy all these luxuries rather than to choose between them; but if the income is not adequate to provide for all of them, the question of selection inevitably presents itself. The cost of the automobile must then be compared with the cost of a pleasure trip, and, in fact, with all the additional things that might be purchased if the automobile were foregone. The dollar unit comes to stand for a certain amount of "generalized purchasing power," and the task of making a wise apportionment of the family income is thus greatly simplified.

The monetary unit is a guide to savings requirements.—Every family also has the problem of making provision for the proverbial rainy day, for old age, and for dependents. By reckoning in terms of dollars, one may compute with a fair degree of accuracy how large a fund of savings is necessary to provide, upon retirement, an income sufficient to insure himself and dependents against want. Let us assume that in a given case this is

$3,000 a year. To make sure of a perpetual income of $3,000 a year it is therefore necessary to accumulate, assuming the interest rate to be 5 per cent, a fund of $60,000. In order to provide this fund of $60,000, one must save each year such proportion of his income as will eventuate in a given period of time into a fund of $60,000. There are of course many exigencies that may arise to prevent one's working this out with precision. The monetary unit, however, serves at least as a valuable guide to one's requirements. Indeed, insurance tables worked out on the basis of the dollar unit serve as a very reliable guide to the saving that is necessary in given cases to make adequate provision for old age or other contingency.[8]

IV. THE PECUNIARY UNIT AND ECONOMIC ORGANIZATION

Thus far we have been considering the pecuniary unit in its relation to the making of business and personal decisions. We may now look for some of the broader economic and social consequences of the decisions that are made on the basis of pecuniary computations. We have already seen that without an accurate means of computing values extensive trading operations would be impossible. The development of the pecuniary unit in the various commercial nations has given rise to an international denominator of values, by means of which foreign transactions are greatly facilitated. A merchant who wishes to sell goods in a foreign country may ascertain the profits from such sales by simply translating dollars into pounds sterling, francs, or marks, as the case may be. The actual settlement of these international financial obligations, however, has required the development of a rather complex financial mechanism known as the foreign exchanges (see chap. ix).

It should be noted here that with narrowly restricted trading operations little division of labor was possible and small-scale inefficient production therefore necessarily prevailed. A

[8] See, however, the effect on these calculations of unforeseen changes in the price level, p. 32.

large volume of output is absolutely dependent upon wide markets—national and international; hence division of labor and large-scale efficient production had to wait, among other things, upon the development of the pecuniary unit and the extensive trading operations which it made possible.

Similarly, territorial specialization, whereby each portion of the earth is devoted to the production of those commodities for which it is best adapted, depends upon wide markets—national and international. In the absence of an extensive commerce each region must produce most, if not all, of the commodities required for its use.

Territorial specialization is expedited by pecuniary calculation.—The pecuniary unit serves as a ready means of indicating the relative productive advantages of different regions and thus directs and hastens the spread of population to the regions where a given expenditure of effort will produce the maximum return. There are, of course, barriers which prevent complete geographical specialization, such as costs of transportation and trade regulations. Within a given country, however, these barriers are nowadays usually negligible, and domestic territorial specialization is therefore comparatively unhampered. The result is a great augmentation on the volume of wealth produced.

Analogous to the spread of population has been the flow of capital from the older to the newer portions of the world. Investors seek to place their funds where returns netted will be highest. The pecuniary unit makes possible a fairly accurate directing of capital to the portions of the world where it will be most productive. Sooner or later every nation reaches a stage in its industrial development when larger returns are to be obtained from investments abroad than from investments at home. Without the pecuniary unit and the mechanism of the securities markets,[4] knowledge as to when this stage has been reached would be uncertain; hence the flow of capital to regions of greater productiveness would be more tardy. Within any given country the

[4] See chap. xv.

flow of capital from one section to another is of course guided in a similar manner.

Pecuniary accounting facilitates the satisfaction of human wants.—The directing of labor and capital into the various lines of industry, guided, as we have seen, by the pecuniary unit of calculation, has likewise important social results. The reason why any given line of industry becomes more profitable than others is that the demands for the products of such industry are not as adequately met by existing production as is the case in other lines. The pecuniary unit of calculation, which hastens the diversion of labor and capital from other lines into this line where the demand is greatest, thereby serves to satisfy human wants more quickly and more adequately than would otherwise be the case. This is only another way of saying that it provides for a larger satisfaction of human wants with the same expenditure of energy than would otherwise be possible.

Similarly, if any given line of industry is waning, owing to a decrease in the power of its product to satisfy human wants, the losses expressed in dollars and cents on a profit and loss statement force labor and capital out of that line of industry much more quickly than would otherwise be the case. Hence misdirected labor and capital remain misdirected for a shorter time, with the result that the losses incident to such misdirection are minimized.

Again, in the internal organization of any business, pecuniary calculations cause improvements in machinery, labor organization, and administrative methods to be made more quickly than would be the case in the absence of an accurate index of profits. There is a continual process of elimination, by means of which antiquated industrial organization is rapidly supplanted, the changes being superinduced by a fear of pecuniary loss, on the one hand, and by the incentive to pecuniary profit, on the other. Every such improvement means an elimination of productive waste. It means a larger output with a given expenditure of human energy; it means that society more easily wrests from nature the means of subsistence and comfort.

QUESTIONS FOR DISCUSSION

1. Note the titles of the first, second, and third chapters. Note especially that chapter i does not relate to the medium of exchange. Define the term "pecuniary unit."
2. The text indicates three stages in the development of the language of business. What are they?
3. Would it be possible for a business man to keep accounts without a system of notation? without a pecuniary unit of calculation?
4. It has been suggested that the standardization of grades of commodities marks another stage in the development of the language of business: it defines quality as well as quantity. Do you agree?
5. "The more highly developed our specialized exchange society becomes, the more essential accurate financial accounting becomes." Do you agree?
6. "The larger the scale on which business is conducted, the more necessary is the keeping of financial accounts. The crossroads merchant has no need of keeping accounts." Do you agree?
7. "Without accounting systems based on the pecuniary unit it would have been impossible to develop large-scale industry." If so, why?
8. "Modern business organization is largely controlled and directed by means of information obtained from financial records. By accounts the business manager ascertains whether the business as a whole is profitable; whether each particular part is profitable; and whether particular methods or devices pay. He also formulates future business policy on the basis of knowledge obtained from his financial accounts." Do all business men do this? Are those who do not likely to survive in competition with those who do? Will everyone who does not do this fail?
9. Do you know of any types of business that are not conducted on a profit-making basis? If so, are such businesses conducted without reference to financial accounts?
10. "The business man endeavors to reduce the inevitable risks of industry as much as possible." Show how financial accounting helps him to do this.
11. What are some of the social consequences of: (*a*) reduced risks in business? (*b*) the accurate appraisal of the profitableness of the business as a whole? (*c*) the accurate appraisal of the profitableness of particular divisions of the business?
12. "Not only does the business man control the internal affairs of his business by means of financial accounts; but his external relations with other businesses, with banks, and with the government are also governed by financial accounts." Do you know of any case where this is not true?

13. Indicate the service performed by the pecuniary unit of calculation in directing the flow of labor and capital (*a*) from region to region, (*b*) from industry to industry.
14. Do you or does your family keep a budget? If not, on what basis is the income apportioned? Do you think the largest possible amount of satisfaction is obtained from the use of such income? If not, does the fault lie with the pecuniary unit?
15. Is it necessary for charitable and endowed institutions, clubs, societies, etc., to make a budget? Is it necessary for governments to make budgets?
16. The commissioner of internal revenue has stated that 2,000 certified public accountants were necessary for the successful collection of the federal taxes for 1919. Why?
17. Can you think of any form of public control over industry that can be effectively administered without the use of financial accounts?
18. What profession or occupation are you going to follow as a life-work? To what extent are financial considerations involved in your decision?
19. Do the decisions that are rendered on the basis of pecuniary calculations always tend to promote social welfare? Illustrate.
20. The "profits' guide" is not a satisfactory guide to what is good for society. Granting the truth of this statement, what can you suggest as a better guide?
21. Under a socialistic organization of society what would be the means of arriving at business and social decisions?

REFERENCES FOR FURTHER READING

Holdsworth, John Thom: *Money and Banking*, pp. 14–16.

Laughlin, J. Laurence: *Principles of Money*, chap. i.

Moulton, Harold G.: *Money and Banking*, Part I, Selections Nos. 26–31, pp. 31–44.

Phillips, Chester A.: *Readings in Money and Banking*, chaps. i, ii.

Scott, William A.: *Money and Banking*, pp. 2–6.

CHAPTER II

THE STANDARD FOR DEFERRED PAYMENTS

It was the purpose of chapter i to show the relation of the pecuniary unit to financial accounting, and thereby to the organization of both business and household economics. It is of note that the discussion related mainly to the rendering of decisions at a given moment; it was not concerned with transactions where the time element was a factor. The present chapter will consider the function of the pecuniary unit in connection with credit operations or deferred payments.

Whenever an individual or corporation sells goods on time, that is, on agreement that they are to be paid for at some date in the future, it is highly important that both buyer and seller be protected, so far as possible, from the risks that inhere in the mere lapse of time. Because of the interdependency of economic institutions and their great sensitiveness to shock, economic changes of serious import may occur during relatively short periods. As one means of minimizing the effects of such changes, society has come to use the pecuniary unit, gold, as the standard in which deferred obligations are paid.

The standard of deferred payments is of importance not merely in the purchase and sale of actual commodities. It is quite as important in connection with the lending of funds. Business is largely conducted in the modern industrial world by means of borrowed capital, represented by credit instruments in the form of stocks, bonds, notes, and bills of exchange. All these financial borrowing operations involve risks of loss incident to economic changes during the life of the loans; and it is accordingly necessary that the standard for deferred payments be a commodity possessing a high degree of value stability.

I. WHY GOLD IS USED AS THE STANDARD

Aside from its important qualities of durability, homogeneity, divisibility, and cognizability, gold is especially superior to other commodities as a standard for deferred payments for the reason that it fluctuates less widely than does the value of wheat, iron, and other commodities which might be used for the purpose.[1] The reasons for this relative stability of value may be readily indicated.

Gold, as a commodity, is subject to the forces of supply and demand just as is any other commodity. The supply of gold is influenced directly by the conditions of production at the mines. The discovery of a "bonanza" mine tends to depress the value of gold as a standard, by greatly increasing its supply; and the exhaustion of a rich vein of ore conversely tends to raise the value of gold, by preventing an increase in supply.

Changes in the cost of producing gold, however, have not in the past had very much effect upon the quantity produced, owing to the speculative character of gold mining. It has been stated that the cost of producing gold has probably, on the whole, exceeded its value, that the losses sustained by the many who have searched in vain have outweighed the gains made by the fortunate few. But in recent years, with the rapid disappearance of placer mining and the development of machine production of gold, the cost of production has come to be very carefully considered. There are marginal mines where it barely pays to take out the gold, just as there are marginal farms and marginal factories. The increased cost of producing gold during the war, for instance, resulted in the closing of many mines where production had formerly been profitable.

Gold differs from most other commodities in that the supply at any given time is not merely the output of a previous year's mining operations; it is a stock that has been accumulated through centuries of production. Gold is a highly durable commodity, and as a result the world's supply becomes larger each

[1] The reasons why gold rather than silver came to be used as the standard are considered in chap. v below.

year, even though the annual production may be rapidly decreasing. The greater part of the gold mined in modern times is still in existence and performing service quite as though it were fresh from the mines of the Klondike. The result of this accumulated world's supply is to render any yearly change in output less and less effective in influencing the value. Pouring a cup of water into a large tank has but a slight effect upon the level of the water in the tank. Similarly, the discharging of a $100,000,000 increased annual output of gold into a total world's supply of twelve or fourteen billions can have but little effect upon the value of the entire mass. A great increase in gold production continued over many years would, however, obviously have a substantial effect upon the value of the mass.

The demand for gold is twofold: (*a*) for use as a commodity in the manufacturing and industrial arts; and (*b*) for employment as a medium of exchange and as the basis of monetary systems. The demand for gold as a commodity is, of course, subject to the same general conditions as the demand for any other commodity. It has utility in the satisfaction of human desires, and this utility is affected by degree of scarcity, change of custom, possibility of substituting other commodities, etc., in the same way that the utility of other commodities is affected. For monetary uses, however, the demand for gold, where free coinage exists, is sometimes said to be unlimited; since all the gold produced may be taken to the mints and converted into dollars or sovereigns, it would seem that there is a limitless demand. This view, however, overlooks the matter of intensity of demand. It is true that monetary systems will absorb the entire quantity of gold offered. But if the supply of the metal is greatly increased, the purchasing power of gold may nevertheless be lessened. Nearly any quantity of wheat would be demanded, at some price, but a doubling of the total supply would substantially lessen the exchange value of each bushel. It is the same with gold.

An increase in the monetary demand for gold would be caused by the giving up of silver as a standard metal in leading countries; by an increased use of gold as a medium of exchange;

by an increase in the quantity of gold required as reserve for substitute forms of money; by an expansion of commerce and trade; or by a less effective use of gold through poor organization of credit. A decrease in the monetary demand for gold would result from opposite causes.

In the foregoing discussion of the value of gold we have been saying, not that gold is absolutely stable in value, but merely that it is more nearly stable than any other commodity that might be chosen. As a matter of fact, gold is subject to wide variations in value and hence leaves much to be desired as a standard for deferred payments. Great fluctuations in the production of gold may cause considerable variations in value, despite the factor of durability. And the use of credit instruments may serve greatly to reduce the demand for gold in the channels of circulation. The relation of credit instruments to the value of gold is one of the most complex problems in economics. It cannot be taken up at this place, for it can be understood only in the light of a thorough analysis of banking operations.

II. RELATION OF MONEY AND PRICES

We have thus far been speaking of the value of gold and of its relative stability for the purposes of deferred payments. To appreciate fully the significance of the standard of deferred payments, however, it is necessary to understand the relation of money to prices.

As already stated, the quantity of money that has been chosen in the United States as the standard, or dollar, is 25.8 grains of metal, nine-tenths gold and one-tenth copper alloy. To express the value of another commodity in terms of money, therefore, we always compare a certain quantity of it, as a pound, bushel, or yard, with 25.8 grains of standard gold. If a bushel exchanges for a dollar, we say the *price* is one dollar a bushel, while if it requires two bushels to equal a dollar in value, then we say the price is fifty cents a bushel. The value of each particular commodity expressed in dollars gives us the price of

that commodity. The general price level is an average of individual prices.

Variations in the price level are shown by means of an index number.—"An index number of any given article at any given date is the percentage which the price of that article at that date is of the price of the same article at a date or period which has been selected as base or standard." There are numerous index numbers in use; and the base or standard chosen varies. For example, the index number of the *London Economist* takes as its base the average price of the commodities included for the years 1845 to 1850. The index number of the *Aldrich* (U.S.) *Senate Report* takes average prices for the year 1860 as a base; while the American index number, that used to show the history of prices during the Great War, is computed on the basis of average actual prices in the twelve months preceding the outbreak of the war, July, 1913, to June, 1914, inclusive.

The method of computing index numbers may be illustrated as follows. The average price of each commodity for the year 1913 is considered as 100. Then every month the prices of the various commodities are turned into relatives on that scale. Thus if wheat sold in 1913 at $1.00 a bushel and in June, 1925, at $1.50 a bushel, the relative price of wheat is then 150. If, on the other hand, the price of any commodity should drop from 50 cents to 40 cents, the relative price would be 80. To ascertain the change that has occurred from month to month in the general level of prices it is only necessary to strike an average of these relative prices.

It is obvious that if the index number is to be truly representative of general changes in prices, a large number of commodities must be used. The index number used in the history of prices during the Great War is based upon 1,371 commodities. The commodities chosen are moreover weighted in accordance with their relative importance, the reason assigned for this being that "great staples like bituminous coal, yellow pine lumber, beef, and cement exercise much more influence upon the final results than articles like horsehair, hickory, cinnamon, and bone

buttons." In order to make the price level reflect the greater importance of such commodities, they are weighted by multiplying the monthly price of each commodity by the quantity produced in and imported into the United States in 1917.

The index number of relative prices will thus reveal a change in the relative value of the standard of deferred payments and of goods in general. It is not to be inferred, however, that a change in the level of prices is necessarily due to causes directly touching the value of the standard rather than to causes affecting the value of the goods which are being compared with the standard. The index number merely reveals the change in relationship; the cause of the change is another question.

It may be said, however, that the level of prices is often changed by forces operating directly upon the standard of deferred payments. This is particularly true in cases where the standard is not a commodity which has utility for other than monetary purposes. Some striking cases of this are given in Section III below. This is not the place, however, to enter upon a discussion of the complex causes of price movements. The present purpose is merely to reveal some of the social and economic results of price fluctuations. But it may be stated in passing that the cause of price fluctuations is one of the most complicated and most disputed questions in the whole realm of political economy.

III. ECONOMIC CONSEQUENCES OF PRICE CHANGES

Price fluctuations, if extensive or long continued, are always disruptive in their effects upon the general economic organization. Rapid price changes render more difficult the pecuniary calculations of business men, thereby greatly increasing the risks of industry and acting as a serious deterrent to business enterprise. The accumulation of capital is discouraged, lending or credit operations are deterred, speculation is induced, and international financial relations are deranged.

The recital of some typical experiences with unstable mone-

tary standards will best serve to indicate the disastrous effects upon the economic system.[2] Finlay tells us in his *History of Greece* that the depreciation in the value of the circulating medium during the fifty years between the reign of Caracalla and the death of Galienus annihilated a great part of the trading capital in the Roman Empire, and rendered it impossible to carry on commercial transactions not only with foreign countries but even with distant provinces.

A second illustration may be taken from the experience of France during the period of the French Revolution. Paper currency had been issued in great quantities in the hope of providing the liquid capital necessary for economic recovery from the ravages of war. Since these paper "assignats" were legal tender, they became the standard of deferred payments. Issued in vast quantities and irredeemable in specie, they fluctuated widely in value and eventually became utterly worthless. In a brilliant monograph[3] Andrew D. White portrays the results in the following language:

> What the bigotry of Louis XIV, and the shiftlessness of Louis XV, could not do in nearly a century was accomplished by this tampering with the currency in a few months. Everything that tariffs and custom-houses could do was done. Still the great manufactories of Normandy were closed; those of the rest of the kingdom speedily followed, and vast numbers of workmen in all parts of the country were thrown out of employment. . . . . In the spring of 1791 no one knew whether a piece of paper money, representing 100 francs, would, a month later, have a purchasing power of 100 francs or 90 francs, or 80, or 60. The result was that capitalists declined to embark their means in business. Enterprise received a mortal blow. Demand for labor was still further diminished. The business of France dwindled into a mere living from hand to mouth. This state of things, too, while it bore heavily against the interests of the moneyed classes, was still more ruinous to those in more moderate, and most of all to those in straitened, circumstances. With the masses of the people the purchase of every article of supply became a speculation—a speculation in which the professional speculator had an immense advantage over the buyer. Says the most brilliant apologist for French Revolutionary statesmanship, "Commerce was dead; betting took its place."

[2] For other illustrations see chaps. v and vi below.

[3] *Paper Money Inflation in France.*

The free-silver agitation of the nineties deranged international finance.—The results of an unstable standard of deferred payments upon business organization find no better illustration than in an American experience of the early nineties. The single gold standard had been decreed by the Act of 1873, afterward known as the "crime of '73," which omitted the silver dollar from the list of coins that could be struck at the mint. Powerful interests, however, supported the restoration of the bimetallic standard; with the result that the Bland-Allison Act of 1878 partially restored the coinage of silver, while the Sherman Act of 1890 still further increased the amount of silver that must annually be converted into currency.

This latter act provided that silver, purchased by the government, could be paid for by means of an issue of legal tender Treasury notes, redeemable in *either* gold or silver at the discretion of the Secretary of the Treasury. At the time, the bullion in a silver dollar was worth only a little over fifty cents, and silver coins were kept at a parity with gold by virtue of the government's willingness to accept silver as the equivalent of gold in the payment of taxes, etc. Under these circumstances, if the Treasurer had refused to redeem these Treasury notes in gold the result would have been to destroy the parity value of silver and gold; since the Treasury notes would have been redeemable only in silver, the country would in effect have been thrown upon a depreciated silver basis. Deferred obligations would then have been payable in dollars that were worth only about half as much as the dollars in which they had been contracted. The Secretary of the Treasury wisely took the stand that he would never refuse to redeem them in gold, so long as there were available funds in the Treasury. In order to maintain gold payments, however, it proved necessary for the government to replenish the Treasury in 1894 and 1895 by a series of bond issues.

While suspension of gold redemption was thus avoided, the imminent possibility for several years of precipitating the country upon a depreciated silver basis, together with a powerful agitation for a complete restoration of the bimetallic standard of

gold and silver—which would have meant a cheaper standard—nevertheless worked havoc with American finance and industry. In the first place, it destroyed the confidence of foreign investors in American securities. If the interest on the principal of these investments were to be paid in silver, the purchasing power of which was only about half that of gold, the value of European investments would thus be cut in two. During the latter part of 1892, the year 1893, and the early part of 1894, it is estimated that about $300,000,000 of European securities were returned to the United States by their foreign owners because of the uncertainty of the standard in this country; and at the same time the annual increase of new European investments was largely curtailed. This necessitated large exports of gold; and this in turn greatly embarrassed the Treasury in its efforts to maintain the convertibility of all forms of currency into gold, because the banks could obtain the gold required for export only by presenting Treasury notes (and greenbacks) to the Treasury for redemption. While there were at work during this period other factors which had an important bearing on the general financial situation, the uncertainty of the standard of deferred payments, on the basis of which all time obligations are undertaken, was a primary source of difficulty.

Domestic finance was also disorganized.—Moreover, it was not alone foreign investments that were thrown out of adjustment. Domestic financiers who had debts which called for payment in gold at maturity found themselves in a quandary. If they accepted the Treasury notes (and this they must do because they were legal tender) in ordinary business operations, could they safely hold and use these notes until debts matured and then exchange them at the Treasury for the gold required to fulfil their gold obligations? The answer depended on whether the Treasurer should continue to redeem the notes in gold as well as in silver coins. The uncertainty of the situation caused many business men to present notes for redemption as fast as they were received, instead of waiting until the gold was actually needed. For so long as the Treasury continued to pay in gold,

the gold withdrawn could be hoarded, thereby making certain the meeting of gold obligations when they should mature. But this constant draining of the Treasury of its gold supply only served to render more precarious the ability of the Treasury to maintain the gold standard; and this in turn served to intensify the general uncertainty.

If existing contracts were rendered unsatisfactory and precarious by virtue of this uncertainty over the future of the standard, it is easy to see that individuals would hesitate to incur additional long-time obligations. The investment-and-loan market was, in fact, demoralized.

The post-war depreciation of the German mark demoralized the economic life of Germany.—In consequence of an unbalanced budget, and the requirement of large reparation payments, the German government resorted to the use of irredeemable paper money as a means of meeting its current obligations both at home and abroad. The process of issuing the currency was indirect, the government giving its promissory notes to the Reichsbank and the latter issuing its bank notes in exchange therefor. As the note issues increased the value of each unit as compared with gold steadily decreased. The accompanying table shows the changes in the note circulation of the Reichsbank during the war and post-war periods up to the date when the "*Rentenmark* stabilization" occurred.[4]

The effects of the depreciation of German currency upon trading operations have been described as follows:

> Dependent as Germany is upon foreign trade, the country was bound to suffer in many ways from the acute, unpredictable fluctuations of her exchange rates. Outstanding among the difficulties born of the mercurial course of German exchange in 1923 was the element of uncertainty. As a result of the sharp and unpredictable fluctuation in currency, it was impossible to calculate the future outcome of any business deal. The exporter was quite unable to reckon how much the payment for his goods would yield him in terms of marks; the importer was at a loss to know what amounts in marks he would have to provide to cover his foreign currency

[4] A discussion of the problems involved in stabilization will be found in chap. ix.

requirements. Under these circumstances business became extremely speculative.

In the later stages of mark depreciation it is, of course, true that German business men sought to eliminate this uncertainty by quoting domestic prices in "stable currencies," such as the dollar or pound sterling. Instead of banishing the risk caused by the fluctuations in German exchange, however, this practice in many cases merely shifted it to someone

GERMAN NOTE CIRCULATION AND GOLD HOLDINGS*

Date	Note Circulation Marks	Equivalent of Note Circulation in U.S. Dollars	Gold Holdings Marks
Dec., 1913	2,593,000,000	$ 617,240,000	1,266,187,000
Dec., 1918	22,188,000,000	2,682,500,000	2,262,167,000
Dec., 1919	35,698,000,000	749,700,000	1,089,499,000
Dec., 1920	68,805,000,000	942,600,000	1,091,636,000
Dec., 1921	113,639,000,000	602,300,000	995,392,000
Dec., 1922	1,280,095,000,000	128,000,000	1,004,843,000
Jan. 6, 1923	1,336,500,000,000	153,697,500	1,005,000,000
Feb. 7, 1923	2,253,963,000,000	61,983,980	1,005,000,000
Mar. 7, 1923	3,871,256,000,000	187,755,910	1,005,000,000
Apr. 7, 1923	5,624,110,000,000	267,145,225	1,005,000,000
May 7, 1923	6,723,070,000,000	183,203,657	913,909,000
June 7, 1923	9,309,532,000,000	121,023,916	756,914,000
July 7, 1923	20,241,750,000,000	91,087,875	707,000,000
Aug. 7, 1923	62,326,659,000,000	19,944,530	596,351,000
Aug. 15, 1923	116,402,515,000,000	41,904,995	516,122,000
Aug. 23, 1923	273,906,373,000,000	62,998,465	512,122,000
Aug. 31, 1923	663,200,000,000,000	69,636,000	510,486,000
Sept. 7, 1923	1,182,039,000,000,000	35,461,170	490,000,000
Sept. 15, 1923	3,183,681,000,000,000	30,244,969	490,000,000
Sept. 22, 1923	8,627,730,000,000,000	50,040,834	470,000,000
Sept. 29, 1923	28,228,815,000,000,000	138,321,193	444,000,000
Oct. 6, 1923	46,933,600,000,000,000	51,626,960	443,000,000
Oct. 15, 1923	123,349,786,603,000,000	30,837,446	443,000,000
Oct. 22, 1923	524,330,557,246,000,000	11,797,437	467,000,000
Oct. 31, 1923	2,496,822,908,936,000,000	14,980,937	467,000,000
Nov. 7, 1923	19,153,087,468,804,000,000	7,661,234	467,000,000
Nov. 15, 1923	92,844,720,742,927,000,000	23,211,180	467,000,000
Nov. 23, 1923	223,927,315,083,796,000,000	44,785,463	467,000,000
Nov. 30, 1923	400,267,640,291,750,000,000	60,040,146	467,000,000

* Data compiled from official reports.

else. Since both exporters and importers carried on their business in Germany, they had to calculate costs and prices on the basis of paper mark values. Quoting prices in dollars, therefore, did not abolish the uncertainty arising from exchange fluctuations. Not only Germany's foreign trade, but her domestic business as well, suffered severely from the uncertainties caused by the movements of German currency. Unable to foresee whether the price would rise or fall, merchants and manufacturers could neither calculate costs nor fix prices, so that business became close to guesswork. . . . .

Although the exportation of goods appeared profitable, business men

in Germany frequently conducted this business at a loss. The paper mark prices received for goods exported seemed extremely high when, in reality, they were below replacement costs. In consequence, German business men frequently found during 1920 and 1921 that although they had cleared huge paper mark profits, they had conducted their business at an actual loss.[5]

As the mark continued to fall in value, it became the height of unwisdom for any class of society to deposit money in banks or invest in securities. The national motto of Germany was said to have become: "Save and you are lost; spend freely, speculate, or buy foreign currency, and you win." No class could, under the conditions prevailing, make provision for old age or effect savings for the rainy day.

Business men, however, sought to find a way out, by using the earnings of industry in hiring labor to build additions to plant and equipment instead of building up reserve and surplus accounts and maintaining adequate bank balances. The result of this was to increase materially the fixed capital of business and industrial concerns, but also to wipe out almost completely the working or liquid capital. In this connection, it will be borne in mind that not only were no *additions* made to liquid working capital, but the *accumulated* surplus funds invested in securities, together with bank deposits, were rendered practically valueless. The process left Germany with a tremendous dearth of working capital, resulting—even after stabilization was effected at the end of 1923—in interest rates on current loans as high as 40 to 50 per cent. And notwithstanding huge borrowings abroad since the inauguration of the Dawes Plan, interest rates are still[6] from two to three times as high as they were before the war.

The price level changes more or less continuously.—The foregoing are rather extreme cases of price fluctuations and their effects upon industry. The general level of prices, however, is always changing more or less, owing to causes which need not be

[5] John Parke Young, *Foreign Currency and Exchange Investigation*, Serial 9, Vol. I, pp. 418–19. (*Report of Commission of Gold and Silver Inquiry*, United States Senate, 1925.)

[6] June, 1925.

LEVEL OF PRICES, 1840–1924

Heavy black line shows index of wholesale prices. Dotted line shows gold prices during period of greenback depreciation, 1862–78. The data are taken from the revised index numbers of the Bureau of Labor Statistics of the United States Department of Labor. The table has not as yet been published, but it has been issued in mimeographed form, No. 3350. The gold figures for 1862–78 are computed from data given by Mr. Aldrich for the Senate Committee on Finance, Part I (1893), p. 91.

considered here. From 1850 to 1865, for example, there was a substantial increase in the level of prices; from 1865 to 1896 there was a great decrease in the price level; from 1896 to 1914 there was a marked rise; from 1914 to May, 1920, the price level advanced nearly 150 per cent; while between May, 1920, and December, 1921, prices declined by about 40 per cent. The chart on the preceding page shows the variations that have taken place in the price level in the United States from 1840 to the present time.

IV. PRICE CHANGES AND SOCIAL MALADJUSTMENTS

In the foregoing illustrations we have considered the effects of changes in the level of prices upon the risks of industry and hence upon the stability of business enterprise. We shall now see that price changes produce other maladjustments, which are of almost as great importance. Social maladjustments are caused: (1) between borrowers and lenders, or debtor and creditor classes; and (2) in the real income of the salaried and wage-earning classes.

Price changes disrupt the equities between debtors and creditors.—The effects of the depreciated paper of the Revolutionary War period upon the debtor and creditor classes have been vividly described by a writer of the time, as follows:

> The aged who had retired from the scenes of active business to enjoy the fruits of their industry found their substance melting away to a mere pittance, insufficient for their support. The widow who lived comfortably on the bequests of a deceased husband experienced a frustration of all his well-meant tenderness. The laws of the country interposed, and compelled her to receive a shilling where a pound was her due. The blooming virgin who had grown up with an unquestionable title to a liberal patrimony was legally stripped of everything but her personal charms and virtues. The hapless orphan, instead of receiving from the hands of an executor a competency to set out in business, was obliged to give a final discharge on the payment of 6*d.* in the pound. In many instances, the earnings of a long life of care and diligence were, in the space of a few years, reduced to a trifling sum. A few persons escaped these affecting calamities by secretly transferring their bonds, or by flying from the presence or neighborhood of

their debtors. A hog or two would pay for a slave; a few cattle for a comfortable house; and a good horse for an improved plantation. A small part of the production of a farm would discharge the long-outstanding accounts, due from its owner. The dreams of the golden age were realized to the poor man and the debtor, but unfortunately what these gained was just so much taken from others.[7]

Since the world-war, nearly every continental European country has passed through experiences similar to the foregoing. Investors have seen the accumulated savings of a lifetime evaporate within a relatively few months of currency disorganization. The salaried classes have been reduced to actual starvation; and the wage-earning groups have suffered almost as much, notwithstanding the practice of adjusting wages to weekly changes in the purchasing power of money. When the price of a meal rises 10 per cent between the first and second courses, as was the case during the period of most rapid currency depreciation in Germany, it is clear that price indexes are rather difficult to keep pace with.

The effects of a depreciating standard are much more serious under a highly organized economic system than they were in earlier days.—When finances went to pieces in Colonial days, nearly everybody could go on producing the food required for sustenance on his farm or in his own back yard, and in making at home at least many of the things required for comfort and convenience. But modern business is set in the midst of a complex financial and price mechanism which governs and controls nearly all economic activity. The financial evolution of the last half-century has created huge classes dependent upon investments in securities, deposits in savings banks, policies, insurance companies, etc., and huge urban populations dependent for their daily existence upon the smooth functioning of the delicate machinery of international finance and commerce.

Accordingly, when the currency declines in value, the effects upon certain classes in society are simply disastrous. It is said,

[7] David Ramsay, *History of American Revolution* (1789), pp. 134–35.

with reference to Germany, that the depreciation of the mark has created a country divided into three classes:

> One that suffers silently and goes under in decency; another that profiteers cynically and spends recklessly; and a third that writhes in desperation and wishes to destroy in blind fury whatever is left of a government and of a society that permits such conditions.

The foregoing are extreme illustrations of the results of disorganized currency and changing prices upon the various groups in society. We must now turn to a consideration of the effects of less violent price fluctuations upon the fortunes and attitudes of different groups in society. The general fall in prices following the Civil War period (see chart, p. 27), was bitterly opposed by the debtor classes; but it was looked upon with composure, and even championed, by the creditor classes. The reason for this was that a fall in prices impaired the economic position of debtors and improved the economic position of creditors. It should be understood here that by debtors is meant not merely the ne'er-do-wells, people who are poverty stricken, shiftless, and hopelessly in arrears. The debtor class is composed most largely of individuals and corporations who have borrowed capital for use in business enterprises of various sorts. For instance, the farms of the Middle West were largely purchased on borrowed funds. A small accumulation was sufficient to make an initial payment, and a mortgage was given for the balance. Out of the income from the farm, the owner paid interest on his mortgage and gradually reduced the principal, thus eventually acquiring complete ownership.

The fall in the prices of farm products after the Civil War made it very difficult to pay mortgages as they fell due, with the result that a large percentage of them were extended again and again. Since a falling price did not increase the number of bushels grown per acre, the farmer found his actual income reduced. Falling prices thus meant hard times, inability to get ahead in the world. The result was a great popular resentment against a contraction of the volume of currency, which was deemed re-

sponsible for the fall in prices;[8] and for more than a generation the money question overshadowed all other issues in American politics.[9]

The view of the debtors was well expressed in the following statement made by Congressman Voorhees in 1891:

> It may be stated without the slightest fear of contradiction that the attack upon silver money in this and other countries is based upon no demerit or unsoundness on its part, but is simply a movement for the contraction of the currency. This movement is made by the moneyed classes who wish to increase the purchasing and interest-gathering power of money in their own hands by making it scarce in the hands of others; by people with large incomes growing out of monopolies protected by unjust legislation; by those who enjoy annuities, interest in public securities, fixed salaries under great corporations and by the creditor classes in general, including all the enormous loan associations, who join in the movement of silver destruction and financial contraction in order to enhance twofold and more the value and power of the money they wring from the hands of the laboring people. This will result in the practical enslavement of those who are in debt and who toil for a living. The policy of contraction is the policy of organized, unsparing, pitiless avarice.[10]

The viewpoint of the creditor class is found in the following statement by Francis A. Walker, one of the most eminent economists of his day, at the time president of the Massachusetts Institute of Technology:

> The inflationists, like the poor, we have always with us. Political education, the growth of sound economic ideas, the establishment of manufactures, trade, and banking will do much to diminish the number of the members of this class; but humanity will have to pass through many more stages of refinement and education before that element will be entirely

[8] A similar opposition to a fall in prices after the Great War has been manifested by the agricultural interests.

[9] It is not to be understood from this statement that the attitude of the debtor class was alone responsible for the agitation for greenback currency and a restoration of bimetallism during the period in question; for numerous other interests were involved. For a good discussion of the entire problem see R. F. Hoxie, "The Silver Debate of 1890," *Journal of Political Economy,* I (1892–93), 545–73.

[10] From "A Plea for Free Silver," *North American Review,* CLIII (1891), 529–30.

eliminated. The instinct of spoliation and confiscation, the passion for making something out of nothing and much out of little, the desire to pay debts in depreciated currency, are too deeply implanted in poor, fallen human nature, to give way altogether either to ethical instruction or to demonstrating that in the long run honesty is the best policy. There are tens of thousands of people in Massachusetts today who, if removed west of the Mississippi, or only even beyond the Alleghenies, would be rampant inflationists, but are here overawed by the dominant sentiment of the community, or are silent because they see no chance to act with effect in such a hopeless minority.[11]

With the reverse movement of prices that began in 1896, it soon became a horse of another color. The rise in the general level of prices meant that it became increasingly easy for those who had borrowed funds to meet interest payments and to reduce the principal when the obligations matured. Farmers, for instance, did not need to raise a larger number of bushels of wheat in order to secure larger incomes when the price of wheat was advancing. On the other hand, lenders who received this interest and principal found that the dollars received in payment would not go so far as formerly in purchasing commodities. The real return on the money invested was thus diminished; while the shrinkage in value of the investment itself often produced serious consequences.

When we speak of creditors in this connection, we have in mind not merely large capitalists who have money invested. The term includes anyone who puts money in savings banks, takes out insurance, or invests in bonds. All who depend on fixed incomes from investments find their annual purchasing power steadily reduced. A larger amount of insurance is required to afford the necessary protection to one's dependents, and the volume of savings that must be set aside for old age must be increased.

A rise in the general level of prices causes serious variations in real salaries and wages.—Only in case salaries were increased proportionally to the increase in the prices of those commodities which enter into the consumption of the salaried man could a

[11] From *Journal of Political Economy*, I (1892–93), 166.

fall in his real income be avoided. But the truth is that salaries almost never advance in step with an increase of prices. There are numerous reasons for this.

First, there is a great deal of inertia to be overcome. Second, salaried men are seldom organized and they can therefore bring no concerted pressure to bear. Third, there are many cases where the employer cannot raise salaries without serious financial consequences. This is particularly true in the case of institutions whose income is largely derived from fixed investments, themselves subject to the adverse effects of rising prices. Fourth, there is usually the hope, if not the expectation, that prices will shortly recede again; and since salaries once raised are difficult to lower, it is regarded as the part of wisdom to make no premature salary advances.

Wages show more of a tendency to rise with prices than do salaries, although there has usually been a considerable lag in wages, due in general to the same forces that operate to prevent an increase in salaries. But where laborers are strongly organized, an early increase of wages is usually secured. And since it is usually *industrial* concerns, which are making good profits in a period of rising prices, that employ wage-earners, it is often easier to make the adjustments than is the case with the salaried class, so many of whom are in the employ of institutions which are dependent upon fixed investments or upon an increase in public taxes.

A factor of great importance in connection with the wage situation in a period of advancing prices is that in the early stages of the price increase there is usually very active business, and hence steady, as opposed to intermittent, employment. Even though wage rates do not advance as rapidly as prices, the aggregate annual wage may nevertheless for a time keep pace with the cost of living. There is always an end to this compensating advantage, however, for there is a limit to the number of hours per day and the number of days per year that a laborer can work. Eventually, the laborer always feels keenly the effects of a general advance in prices.

Because of the difficulty in lowering wages and salaries that have once been raised, employers prefer to give bonuses during periods of rising prices, as a means of adjusting incomes. A bonus does not become a permanent part of an employee's income; it is in its very nature a temporary adjustment. Hence if prices later recede, the bonus may be omitted without vigorous opposition on the part of employees. Bonuses take many forms, and there is no general agreement as to the most satisfactory type. One feature appears to be common, however, that of giving a larger bonus to those in the lower ranges of salaries and wages, on the principle that these classes are nearest the minimum of subsistence and therefore stand in greatest need of relief.

One of the most distressing results of rising prices is that it becomes increasingly difficult for those who most need to make adequate provision for the future to make such provision. Since the annual purchasing power of one's income is decreased, customary savings, to say nothing of compensatory savings with which to offset the rise of prices, can be secured only by a reduction in the standard of living, something extremely difficult to countenance. The general problem is complicated by the fact that few people have any means of knowing in advance what the trend of prices is likely to be. Hence it is virtually impossible to adjust one's savings to the changing needs of the situation. Security against the vicissitudes of existence thus becomes more uncertain; and the risks of life are substantially increased.

Since the real return from fixed investments is a diminishing one during periods of rising prices, it is preferable at such a time to invest in stocks rather than bonds. The reason for this is that the income from stocks is not fixed and is likely to increase as prices rise. Since the monetary value of the investment rises with the price level, the original investment does not shrink as it does in the case of bonds. While men of affairs may well take advantage of this factor, knowledge of it affords small comfort to those who are most adversely affected by a changing price level, namely, dependents with small knowledge of business and of the character of specific shares of stock. The risks involved in pur-

chasing stocks, together with the inability, in most cases, to distribute the risks adequately by a variety of investments, generally makes it necessary for those dependent upon an income from investments to purchase bonds rather than stocks.

During a period of falling prices results opposite to those portrayed above tend to work out. Salaries are usually not reduced as prices fall, and the real income of the salaried man therefore increases. While wages fall, they do not as a rule decline as rapidly as prices; and the laboring class would accordingly also find its standard of living improved were it not for the fact that a period of falling prices is usually a period of dull times, during which the employer endeavors to minimize his losses by reducing the number of men on the pay-roll. As business recovers, however, unemployment diminishes and organized labor perhaps tends to consolidate the gains resulting from their resistance to wage declines.

QUESTIONS FOR DISCUSSION

1. Why was the function of money as a standard of deferred payments of comparatively late development? Is it a result or a cause of industrial progress?
2. Does the same commodity usually serve both as a pecuniary unit or common denominator of values, and as a standard of deferred payments? Is this necessarily the case?
3. What is the difference between value and price?
4. What is the value of the dollar unit?
5. What is meant by the mint price of gold? What is the mint price of standard gold?
6. What is meant by the level of prices? How is it determined?
7. Why did the fluctuating standard of paper currency at the time of the French Revolution result in wild speculation?
8. Why should European investors have sold American securities in the early nineties, when it was thought the United States might resort to a silver standard?
9. Would the conditions that existed in the early nineties have deterred you from making long-time loans?
10. What possible ways were open to a German business man of avoiding or lessening the risks resulting from rising prices in 1920–23?
11. Is the new plant and equipment resulting from the currency situation in Germany likely to be fully utilizable now?

12. "A debt for $1,000 that 1,000 bushels would have paid ten years ago now requires the farmer to give up 2,000 bushels of wheat, in exchange for these dollars, with which to pay the same debt. The debts now in existence are principally old debts or renewed or funded debts, or new debts contracted to pay old debts, or debts which the people have been forced to contract by reason of the continued decline of prices. The owners of products must now give up twice as much property to pay the taxes as in 1873" (open letter to President Cleveland, April, 1894; distributed among farmers in a pamphlet). Discuss.
13. To your way of thinking, was it the moral duty of the debtors to stand by their contracts? Suppose prices had risen, would the debtors have advocated a contraction of the currency?
14. Would not the men in the creditor class have had different views if they had been debtors?
15. Was the opposition to "cheap money" in New England due to superior honesty and morality, or to self-interest?
16. Upon what classes of the community do the evils of a depreciating standard fall most heavily?
17. Do investors usually take into account the shrinkage in the value of the standard?
18. Most educational and eleemosynary institutions receive a large portion of their income from investments in bonds. In a period of rising prices is it easy for them to increase salaries and thus offset for their employees the effects of rising prices? Is it easy for them to raise tuition sufficiently to offset at once the shrinkage in the real return from investments and to increase salaries? What is the way out?
19. An insurance company invests its premiums largely in bonds. What is the result during periods of rising prices? falling prices?
20. Do you imagine insurance companies, savings banks, etc., would shift investments to stocks during periods of rising prices?
21. What is meant, precisely, by the high cost of living? Does it mean hard times? for everybody? If prices were low, would everybody be happy? Were they in the early nineties?
22. Is there any means by which the salaried and wage-earning classes may escape the evils of rising prices?
23. If prices should recede in the next few years, what classes will gain? what ones lose?
24. Indicate why a business man might dislike falling prices.
25. Why do farmers usually object to falling prices?
26. What is the attitude of labor toward falling prices?
27. Which do you prefer, the high cost of living or the evil of falling prices?

28. During the war did salaried people and those whose wages did not increase as fast as prices pay indirect taxation? Did such taxation help win the war? Is it a good form of taxation?

REFERENCES FOR FURTHER READING

Currencies after the War. Compiled under the auspices of the International Secretariat of the League of Nations, 1920.

Foreign Currency and Exchange Investigation, Serial 9, Commission of Gold and Silver Inquiry, United States Senate, 1925.

Johnson, Joseph French: *Money and Currency,* chap. ii.

Laughlin, J. Laurence: *Principles of Money,* chap. iii.

Moulton, Harold G.: *Principles of Money and Banking,* Part I, Selection No. 7.

Scott, William A.: *Money and Banking,* chaps. iii and iv.

CHAPTER III

OTHER FUNCTIONS AND SERVICES OF MONEY

I. MONEY AS A MEDIUM OF EXCHANGE

"Money is a medium of exchange." This is the definition of money commonly found in the dictionaries; it is the essence of the layman's thought on the subject; and it is the function upon which most emphasis is usually laid by writers on monetary theory. Treatises on money, indeed, commonly begin with a statement of the inconvenience of barter, or direct exchange of one commodity for another, and then proceed to show the advantages of money as a medium for effecting exchanges.

The inconvenience of effecting exchanges by means of barter is obviously very great. It is necessary for an individual who wishes to trade a commodity not only to find someone who has the precise commodity which he desires; he must also find someone who wishes the particular commodity that is offered in exchange. And even when two individuals, each having a commodity desired by the other, are brought together, it is still often impossible to effect an exchange, because the commodities may be of substantially different value. It is of interest to note that the unequal value of bartered commodities has given rise to the familiar practice of paying something "to boot."

Money as a medium of exchange eliminates the inherent difficulties of barter. The seller disposes of his goods for money, and with the money purchases, at such times and in such quantities as he desires, the goods which he needs.

This function of money as a medium of exchange really divides barter into three parts, as follows:

(1) Selling goods for money, (2) keeping the money until other goods are needed, and (3) using the money to buy other goods. It is further evident

that in these three phases, looked at from the standpoint of the man who starts out with goods to sell, money plays three different parts. In the first, its rôle is that of a thing which can *be obtained* with any goods whatsoever. In the second, its business is to *keep*—store—this power to obtain other goods. In the third, its part is that of a thing which can *obtain* any goods whatsoever.[1]

Exchange makes possible large-scale production.—The service of money in this connection is not merely that it saves time in effecting exchanges. Of infinitely greater significance is the fact that it makes possible a specialized exchange society, and hence large-scale production. Without a medium of exchange business transactions would have to be of the very simplest nature. Trading would have to be confined to local areas, and production would have to be conducted on a small-scale basis. In fact, without a medium of exchange the modern system of specialized production and exchange, by means of which industrial establishments are enabled to produce in tremendous quantities at a low cost per unit, and to sell their products throughout the civilized world, would be out of the question.

II. MONEY AS A STORE OF VALUE

Before the development of modern banking institutions and the system of credit by means of which funds may be safely invested in productive enterprises, wealth was usually stored up for future use by means of hoarding the precious metals. Gold and silver, comprising large value in small bulk, and being of universal acceptability in exchange for commodities, constituted the best means available for accumulating wealth for old age; hence the hidden treasures of history and fable. While under modern conditions money is characteristically held for a brief interval, as noted above, it is not often stored in the sense of being hoarded; it is invested instead through the machinery provided by banking institutions. It is, of course, obvious that this function cannot be well performed by any money that is not relatively stable in value.

[1] F. M. Taylor, *Some Chapters on Money*, pp. 14, 16.

III. THE USE OF MONEY IN PRODUCTION

When money is spoken of as a medium of exchange, one usually has in mind the exchange of consumers' goods. For convenience of exposition, economic treatises have commonly been divided into four parts, devoted respectively to consumption, production, exchange, and distribution. Money is treated under exchange, and its chief function is usually regarded as that of effecting the exchange of goods that have already been produced and are in the market awaiting transfer to the hands of those who are to consume them.

The common failure of writers on money to call attention to the part that money plays in effecting the exchange, on the one hand of personal and professional services, including labor, and on the other of capital goods, raw materials, and partly finished products in the processes of capitalistic production, is no doubt attributable to the fact that monetary theory was first worked out at a time when the volume of personal and professional services was negligible, when the producing and manufacturing process was largely conducted on a non-capitalistic basis, and when in the main it was only completed consumers' goods that were exchanged through the use of money. In emphasizing only the exchange of produced goods modern writers on money have therefore merely followed tradition.

But if one is to appreciate fully the significance of money under a capitalistic industrial régime it is necessary to consider the part that it plays in the productive as well as in the exchange process. Exchange of consumers' goods is not to be excluded; but the rôle of money in getting goods ready to be exchanged as completed products is to be included.

Modern business is almost universally conducted through the use of money.—Under the conditions of modern capitalistic industry money is utilized in connection with every stage of the productive process. With money the manufacturer purchases the materials needed for the construction of his plant; with money he hires laborers to build the factory; with money he

employs an administrative staff to manage his business; and with money he purchases the materials and supplies, together with the necessary labor force required to operate the business. In a similar way the farmer, under modern conditions, uses money in connection with every phase of his operations. So also with the producers of raw material, whether in the form of coal, ores, lumber, what not. While from one point of view the wholesaler and retailer are engaged in distributing goods that have already been produced, from another they are occupied in carrying out certain essential parts of the productive process. Transportation agencies also use money in connection with every phase of their business operations.

In short, practically the entire productive process is nowadays organized and operated through the use of money. All the capital used in modern business is expressed in terms of money, and indeed it is initially in the form of currency. The economist defines capital as concrete material goods used in producing other goods; while the business man usually thinks of capital as money, or funds, available for business purposes. This is primarily due to the fact that subscriptions to shares of stock or to bonds are received in the form of liquid funds, and that with the "fixed capital" thus raised the business man constructs and equips his plant. Similarly, "working capital" usually consists initially of funds in the till or in the bank, derived either from the subscriptions of partners or shareholders or from bank loans. With these liquid funds the business man hires his labor and purchases the materials and supplies required in the producing, manufacturing, or marketing process. With "liquid funds," or money, the factors or production are thus assembled and organized into a going concern.

It is therefore not surprising that the business man should usually think of capital in monetary terms. Upon reflection he will realize, of course, that money is only a handmaiden of production, that the things with which wealth is really created are concrete capital instruments in the form of machines, buildings,

etc. On the other hand, while the economist is warranted in laying emphasis upon the material instruments of production, he must recognize, if he is to appraise successfully the part that money plays in a capitalistic society that without the use of liquid funds or monetary instruments capital goods and labor cannot be assembled and put to productive work.[2]

IV. THE RÔLE OF MONEY IN WAR FINANCE

A consideration of the part that money plays in time of war will serve as a convenient means of revealing its significance in ways other than those that have already been discussed. Napoleon once said that three things are necessary if a war is to be waged successfully: money, more money, and still more money. How often during the recent Great War we were told that money provided the sinews of battle, that cash and credit would insure the victory! Let us consider precisely how money is of service in time of war.

In a war between two nations only, with the rest of the commercial world unaffected, money is of paramount importance. With money in hand the government can purchase the war supplies needed from neutral countries. Money thus buys the real sinews with which wars are waged. Before the entrance of the United States into the Great War, for example, England and France purchased, with money, great quantities of war supplies from the United States. And if these countries could have increased their total supplies of money, they could have continued to purchase materials from the neutral world, to an extent limited only by the producing capacity of the neutral nations.

But under the conditions that existed at the time the United States entered the war, it was impossible to use money to any

[2] From the viewpoint of productive requirements, the supply of money is not always a matter of indifference. "Capital" in the form of funds is sometimes "scarce" and sometimes "plentiful." The amount available may have an important bearing upon productive activities. See chap. xxii

great extent in buying war supplies from any other nation, for the simple reason that almost the entire commercial world was then at war. With his money, Uncle Sam could buy war supplies only from himself. It may be noted that, in consequence of the blockade, Germany had been in this condition from almost the beginning of the war.

It was often said early in the struggle that as long as Germany kept all of her money within the country, she would never be lacking in funds with which to wage the war; and, similarly, many people thought that as long as the United States had great quantities of gold and other forms of currency, we should surely be in a position to wage war effectively. What was not usually appreciated was that money is only a means to an end, and that the total quantity available is of less importance than the way in which it is used by the nation.

There was much apparent mystery in the year 1917 as to how our government could raise some twenty billions of dollars when there was only $4,702,130,941 of currency in the country. The answer is that when we, the people, turn funds into the Treasury, the government promptly buys the needed supplies from us, the people. Funds are thus merely passed through the Treasury Department in successive instalments, giving purchasing power while there, but passing, in the act of purchasing the supplies required, back again into the channels of industry. Twenty billions could thus be raised in a single year by having, say, four hundred million pass through the Treasury Department once a week for fifty weeks. In fact, however, actual gold or actual money is not used to any very great extent; credit instruments in the form of checks and drafts are the means most generally employed in making payments.

Industrial mobilization is accomplished by monetary means.—With money in hand, the government seeks to induce the production of war supplies by means of an offer of high prices to business men engaged in production. It is necessary to offer high prices because it is necessary to effect a substantial shifting of production, if the vast quantities of war supplies required are

to be forthcoming. This shifting of industry from ordinary lines to the production of war supplies gives rise to many unusual risks. The price offered by the government must therefore be high enough to cover all costs incident to the transition into the war business, the losses due to high costs of operation while engaged in the manufacture of war supplies, and finally the losses incident to the transition back to peace-time industry after the war. The price-and-profit system, expressed in terms of the pecuniary unit of calculation and made effective by a diversion of a portion of the money supply of the nation to the government, is thus the means by which the nation secures the readjustment of industry necessary to the successful prosecution of the war.[3]

Private consumers compete against the government for productive energy.—The general public may either aid or deter the government in this process, depending upon the way in which people employ the monetary income at their disposal. If the wages and profits of industry are freely used in the purchase of goods for ordinary consumption, this spending results in a direct competition with the government for the productive energy of the nation. The competition of private buyers of ordinary commodities is usually effective against the government's competition without a proportionate bidding up of prices, for the reason that business is adjusted to the production of commodities for ordinary consumption, and hence the risks of industry are less than is the case where shifting to war production is required. It was because of this competition between private buyers and the government for a limited supply of social energy that the argument for "business as usual" was unsound; and it was be-

[3] While this method of financial inducement was the chief means relied upon early in the Great War, it was later largely supplanted by methods of priority in the use of raw materials, transportation, etc., and in some countries by actual conscription of industrial establishments for war purposes. Taxation may also be made to play an important part in forcing economic readjustments.

cause of this that the governments of all the belligerent nations urged the most rigid economy on the part of the general public.

It will be seen from the foregoing that the chief function of money in time of war is to facilitate the proper direction of industrial energy, to shift production from less essential to more essential enterprises. This is not to say, however, that the total quantity of money available in time of war is a matter of entire indifference; for the necessary shifting of energy can, as a practical matter, be secured more quickly if there is an increase in the total quantity of monetary instruments. Discussion of this phase of the question must, however, here be passed by, since it would involve a study of the problem of reorganizing the entire economic system to meet the tyrranical requirements of war.

V. THE RÔLE OF MONEY IN PEACE FINANCE

A consideration of the way in which money is used in time of war to effect a redistribution of social energy is a convenient point of departure for a consideration of a similar service performed by money in distributing productive energy in ordinary times. As we have already seen, the work of society is now largely organized through the use of money. The greater part of this work is under the direction of private business men in search of profits. Some of it, however—and the amount is constantly increasing—is, in peace as well as in war, under the control of government. Our government, for instance, provides funds for education, charitable organizations, public health, highways and parks, national defense, and a large amount of scientific and social investigation in connection with such departments as agriculture, the interior, commerce, labor, etc. It also conducts the postal service; while in most countries of the world the great transportation systems have long been under governmental direction.

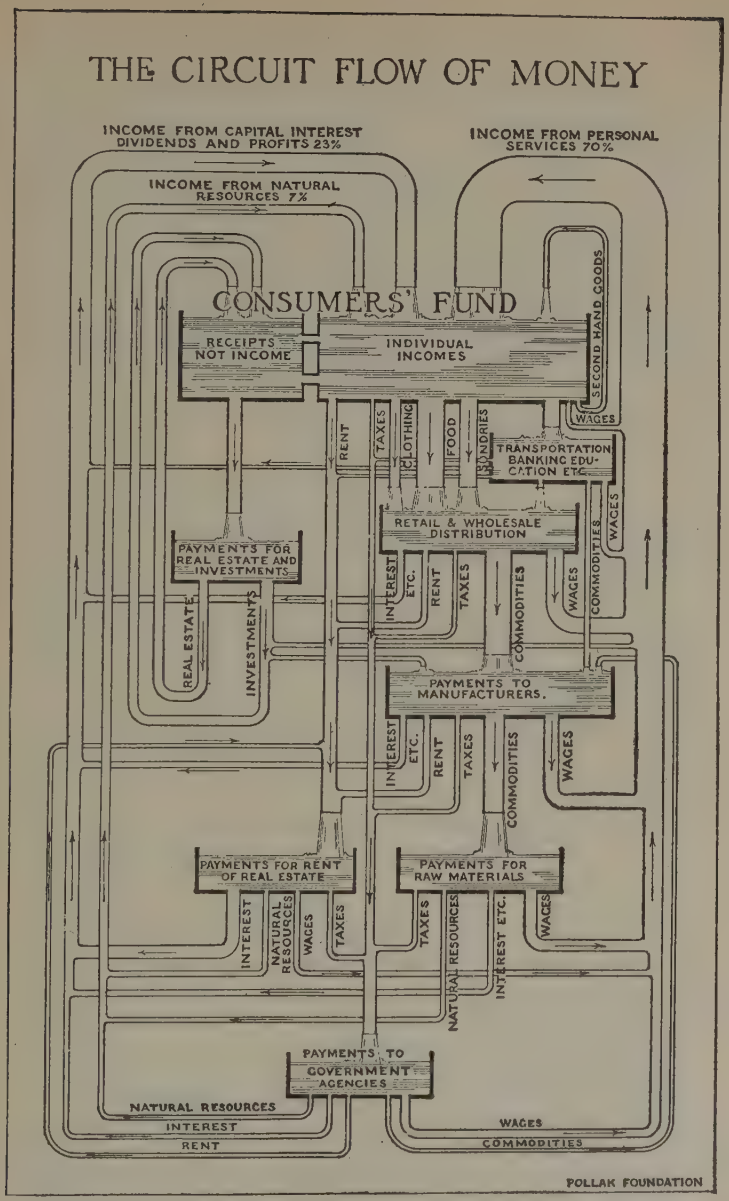
Society is enabled to promote governmental enterprises by diverting funds, through taxation and bond issues, from individuals, who would be spending them for ordinary consump-

tive purposes, to the government, where they are available for hiring the necessary labor supply and for purchasing the required materials for the enterprises in question. Money is the means by which the government is enabled to bid for a diversion of our productive energy into these channels.

The distribution of productive energy is effected by the use of money.—In a similar way, money is the means by which the supply of social energy is distributed among the various forms of private enterprise. We have already seen (chap. i) that it is the relative profits that are to be obtained in different lines of industry that determine the distribution of social energy among those lines. It only remains to note that a demand for a particular line of goods sufficient to induce energy to enter that line is made effective by the use of monetary expenditures in the market; and that money is the means by which the entrepreneur entering that line bids in the labor and commodity markets for the productive energy which he requires in order to produce the goods in question.

Not only is money the instrumentality through which energy is distributed among the different industries engaged in the production of consumers' goods; it is also the means by which the energy of society is apportioned between the production of consumers' goods and the production of additional capital goods. The creation of additional capital goods requires the borrowing of liquid capital in the form of monetary instruments. If society at any given time utilized all of its wages and profits for the purchase of consumers' goods, no funds would be available for the uses of entrepreneurs who desire to create additional capital goods. Saving of a portion of the annual income is necessary if a sufficient volume of funds is to be available in the hands of investment banking institutions for the uses of capitalists who are seeking to develop new enterprises.

On the other hand, every industry which is engaged in turning out consumption goods uses monetary instruments (working capital) as the means of securing the necessary social energy. There is thus a competition for the supply of monetary instru-



This chart is reproduced, with permission from Foster and Catchings: *Money.*

ments between those who are engaged in the production of new capital goods and those who are engaged in the creation of additional quantities of consumers' goods. This competition for the available supplies of monetary instruments and the consequent apportionment of social energy between the creation of capital goods and the creation of consumers' goods involves some of the most intricate and important problems in the entire field of economic organization. Our present purpose, however, is merely to point out the fact that money plays an important rôle in the apportionment of our productive energy. The chart on page 47 is intended to illustrate the flow of money through the various channels of production and distribution.

QUESTIONS FOR DISCUSSION

1. "With barter there must be a 'double coincidence' in order to effect an exchange." Explain by a concrete illustration.
2. Mention as many cases as you can of the use of barter at the present time. Is money not used as a basis of reckoning, even in these cases?
3. Precisely what is meant by the function of a medium of exchange?
4. Discuss the relation of a medium of exchange to: (*a*) industrial specialization; (*b*) territorial specialization; (*c*) the size of the business unit; (*d*) the efficiency of production.
5. Do you think that money is more important as a medium of exchange than (*a*) as a pecuniary unit of calculation; (*b*) as a standard of deferred payments?
6. Is the use of money as a store of value really a monetary function? Is it a function separate and distinct from that of a medium of exchange?
7. When money is invested, is it not still serving as a store of value?
8. Does the business man ordinarily think of money as a medium of exchange? What would he be likely to say the function of money in business is?
9. Is it only goods ready to be transferred to ultimate consumers whose exchange is effected by the use of money?
10. Do you regard the transfer of services under modern conditions as relatively unimportant? Do you regard the payment of money wages as an exchange function?
11. The organization of a business requires the raising of a certain amount of fixed capital. Immediately speaking, this fixed capital is in the form of liquid funds or monetary instruments. Are not these funds, how-

ever, merely used as a means of procuring goods that have already been produced?

12. Every business also requires "working" or "operating" capital. Immediately speaking, this capital is in the form of liquid funds or monetary instruments. Are these funds always used as a means of procuring goods which have previously been produced?
13. Suppose, with the liquid capital possessed by a business, immigrants are hired to come to the United States and are set to work digging coal or ore out of the ground: Was this money used merely in transferring goods? Suppose men otherwise unemployed are put to work producing raw materials or building a factory: Does this involve merely a transfer of existing wealth?
14. In time of war money is regarded as a prime requisite. Can it be used in firing at the enemy? Can it be used to purchase supplies in foreign countries?
15. What is the precise function of money in connection with war finance under conditions where goods cannot be secured from abroad?
16. Could industrial mobilization in fact be effected without the use of money? Could the motive force to industrial mobilization be something besides monetary profits? If so, what? Would money still be used under these conditions?
17. Do you think it is true that private spenders compete directly against the government in time of war? What are the responsibilities of private consumers under such circumstances?
18. In ordinary times do different groups of individuals compete against each other for the use of society's productive energy?
19. What determines the proportion of our social energy that is devoted to the production of food and other necessities of life? Does this coincide with the principle, "Necessities for all before luxuries for any"?
20. "The greater the differences in relative incomes of different classes, the larger tends to be the percentage of our social energy which is diverted to the production of luxuries." Do you agree?
21. In the cases under discussion money is serving a double function: (*a*) as a basis for computing profits; (*b*) as the means by which labor and capital are attracted into the more profitable lines of business. Do you agree?
22. The number of enterprises that are being undertaken by governments —national, state, and local—has been constantly increasing in recent years. Are there important social measures which must be held in abeyance because they cannot be financed? Why is it that they cannot be financed?
23. Each year an adequate proportion of the social energy of society should be devoted to the replenishment and extension of the capital

supply. How is this apportionment of our productive energy, as between the creation of capital and consumptive goods, effected under a pecuniary system?

24. Does spending compete against saving? Why do investment bankers commonly urge more thrift and manufacturers and merchants more spending? Why should the Treasury Department be in favor of economy?

25. Precisely what is meant by "saving"? Has saving been effected, in fact, as soon as money income has been placed in a bank or invested in securities?

REFERENCES FOR FURTHER READING

Foster, William T., and Catchings, Waddill: *Money*, chaps. xv-xviii.

Holdsworth, John Thom: *Money and Banking*, chap. i.

Johnson, Joseph French: *Money and Currency*, chap. i.

Laughlin, J. Laurence: *Principles of Money*, pp. 15–22.

Moulton, Harold G.: *Principles of Money and Banking*, Part I, Selections Nos. 4 and 5.

Scott, William A.: *Money and Banking*, pp. 6–13.

CHAPTER IV

THE PECUNIARY SYSTEM AND ECONOMIC AND SOCIAL STANDARDS

From the very beginning of the capitalistic régime, under which, as we have seen, practically all productive and trading operations are carried on through the intermediation of currency and find expression in monetary terms, there has been a general misunderstanding of the social significance of money. Constituting a general fund of purchasing power—a veritable key to things desired—money is by many people regarded as an end in itself, the *summum bonum* of human endeavor; while by many more it is deemed at least a very superior form of wealth, a plentiful or scanty supply of which renders a nation rich or poor, powerful or impotent. The confusion of money with welfare has, moreover, been responsible for many ill-judged movements for social reform. Indeed, so vital an influence has money been in the evolution of industrial society that Alexander Delmar, who has doubtless given more study to the origin and development of monetary systems than any other writer, suggests that the history of money is the history of civilization.

While this view is not accepted by most writers, all are nevertheless agreed that money has played a rôle of enormous importance in the affairs of men. More articles and books have been written and there has been more discussion on the subject of money than on any other in the entire realm of political economy. At the same time the various controversies have developed more extreme enthusiasm and greater bitterness of denunciation than those in any other field. In the somewhat exaggerated phraseology of Mr. Bryan, "Brother has been arrayed against brother, father against son. Warmest ties of love, acquaintance and association have been disregarded; old leaders

have been cast aside . . . . and new leaders have sprung up to give direction to the cause of truth."

I. MONETARY EVALUATION AND SOCIAL IDEAS

The extraordinary importance that has been attached to money throughout the ages may be appreciated by reference to the following classical quotations. They also suggest the influence of the pecuniary calculus upon ethical standards:

Horace: Make money, money, man;
Well, if so be,—if not, which way you can.

Timocles: Money's the life and soul of mortal man. Who has it not, nor has acquired it,
Is but a dead man, walking 'mongst the quick.

Milton: Money brings honor, friends, conquest, and realms.

Pope: There London's voice, 'Get money, money still,
And then let virtue follow if she will.'

Tennyson: But the jingling of the guinea helps the hurt that honor feels.

Paul of Tarsus: For the love of money is the root of all evil.

The perversion of social ideals that has attended the development of a pecuniary system is well expressed by Professor Davenport in the following language:

More and more, and more and more exclusively, and over an ever-widening field of human effort, human interests and desires and ambitions fall under the common denominator of money. Doubtless many of the best things in life do not get bought and sold. Some of them are not exchangeable; and not all things that could be transferred are men weak enough to sell or other men strong enough to buy. Not every man has his money price. But most good things do, in greater or less degree, submit to the money appraisal. Health is easier for him who can take his ease and who has the wherewithal to pay for good foods and medicines, to travel, to employ good nursing, and to command capable physicians and efficient surgeons. And in their degree, also, love and pity and respect and place are bought and sold upon the market. It takes a goodly number of dollars to get a child safely born, and even more dollars to achieve for one's self a respectable burial. Much money is power over many things. Money is the standard of value in the sense that all values of all exchangeable things are expressed in terms of it. And this holds, not only of all commodities and services, but of all incomes and of all capitals. The capital of a banking

house, or a factory, or a railroad company is not a congeries of tangible things, but a pecuniary magnitude—so many dollars. All economic comparisons are made in money terms, not in terms of subsistence, or of beauty, or of artistic merit, or of moral deserving. This same standard tends to become also the test and measure of human achievement. Men engage in business, not solely to earn a livelihood, but to win a fortune in a pecuniary sense. To win by this money test is to certify one's self tangibly and demonstrably as having scored in the most widespread and absorbing of competitions. Is one a great artist—what do his pictures sell for? Or what is the income of this leading advocate? or of that famous singer? How great are the author's royalties? The pecuniary standard tends to be carried over into non-pecuniary fields.

It is almost past belief how far both in degree and in direction money valuations pervade all our thinking. Cheapness is prone to be synonymous with ugliness, richness with beauty, elegance with expensiveness. No one can tell for himself where the really aesthetic begins and the sheer pecuniary ends. In the field of morals, also, the so-called cash-register conscience is an actual thing. And one might go still further and note that almost all great political issues, and almost all absorbing social problems, and almost all international complications, rest upon a pecuniary basis. Our national problems are tariff, labor unions, strikes, money, trusts, banking, currency, railroads, conservation of resources, shipping, taxation. Success in elections, in the selection of senators, in the making of laws, and in the selection of judges is prone to be desired for financial ends and to be decided by pecuniary means. Diplomatic complications hinge upon trade connections, the open door, fisheries and sealeries, colonies for markets, and spheres of influence for trade. Navies are trade guardians and trade auxiliaries. Eliminate from local politics the influence of the public-service corporation, of the contractor, and of the seekers for special pecuniary privileges, and what is left of the municipal problem will be mostly the pecuniary nexus of the slum with the ballot box, of the saloon with the police system, and of saloon and slum and brothel with the city hall.[1]

The system of pecuniary evaluation also tends to substantial conservatism in the matter of social progress. All people who are in possession of monetary incomes hesitate to see social institutions, upon the stability of which depends the certainty of their incomes, disarranged by either political or industrial changes. Vested interests which find their expression in pecuniary terms stand as a bar sinister to social progress. Even labor

[1] Herbert J. Davenport, *The Economics of Enterprise*, pp. 22–24.

has generally been induced to resist change because change usually involves, immediately speaking, a sacrifice of wages—and, in these latter days, of interest on savings deposits and investments as well. Short-run pecuniary needs usually bulk larger in the laboring man's horizon than long-run gains, either to himself or to society as a whole.

Nearly everywhere, indeed, the price system tends to emphasize the short- rather than the long-run point of view. Obsolete and inefficient methods or institutions persist long after it is clear that welfare would be distinctly promoted were they supplanted by others. Natural resources are ruthlessly exploited during a few brief years, leaving to future generations a depleted national heritage—merely because it pays best to mine, or lumber, or farm without thought of the distant morrow. Human beings, also, are at times driven at an exhausting pace and at others denied the opportunity of earning a livelihood, in order that a maximum of monetary profits may result for those who, in the evolution of industrial society, have come to direct the machinery of modern production.[2]

II. THE CONFUSION OF MONEY WITH WEALTH

The importance that individuals in a pecuniary society necessarily attach to their monetary incomes lies at the basis of the prevailing idea that the quantity of money possessed by a nation is always of paramount importance. If the more money an individual has the wealthier he is, why is it not also true that the greater the quantity of money within a nation the richer is the nation? This belief that nations, like individuals, are well-off in proportion to the amount of their wealth or income as expressed in monetary terms lies at the basis of most of the monetary controversies of the past, among which may be mentioned the cheap money experiments of Colonial days and the greenback and free-silver panaceas of our later history. Indeed,

[2] For an exposition of this phase of the modern pecuniary system see chap. xxii.

more or less continuously throughout American history there has been a persistent complaint that our economic ills are largely attributable to an insufficient quantity of money.

Professor Bullock tells us that a review of the currency history of America reveals that "a strong movement in favor of cheap currency has existed continuously in this country from the earliest period of colonization; . . . . back of all the strivings for an inexpensive medium of exchange, each generation of our people has always heard the complaint that our supply of money has been insufficient." And Adam Smith wrote in 1776 that "no complaint is more common than that of a scarcity of money." John Witherspoon, writing in Revolutionary days, points out that if those persons who perpetually cry for a larger volume of gold and silver read the Scriptures "they may there learn that in Solomon's time, the silver was plentiful as stones in Jerusalem"; but that silver was so plentiful that "it was nothing accounted of in the days of Solomon."

The mercantilist philosophy rests on confused ideas about money.—The belief in the potency of much money is the principal basis of the policy known as mercantilism, a doctrine which flourished most extensively in the seventeenth and eighteenth centuries but still survives in the belief that an excess of exports over imports and a consequent flow of gold into a country is at all times and under all circumstances distinctly advantageous. The doctrine of mercantilism, it is true, was linked up with ambitious programs for national supremacy, to be attained through the diversification of industry and particularly through the development of manufacture; and it was apparently instigated by manufacturing and producing interests with something to gain personally as a result of mercantilist policy. But it undoubtedly owed its popular support to the prevalent assumption that an inflow of specie into a country is the paramount requirement for national affluence.

Examples of mercantilist doctrine at the present day are legion; for the financial and business press of the country is

continually calling attention in times of large exports to the enormous gains that are accruing to the nation. To give but a single quotation, a well-known financial writer stated in 1916 that "the great balance of trade in our favor, amounting to practically one billion dollars, is very gratifying to the American people and to the American government."

The doctrine that we should "patronize home industry" affords another illustration of the prevalent confusion.—Closely akin to the supposed advantages of a favorable balance of trade with other nations is the contention that it is the duty of the people of all communities to patronize home industry. The following quotations indicate the assumed advantages of trading only with local dealers:

> A dollar spent in Auburn gives you another chance at it; but, if it is spent out of town, it's "Good-bye, Mary."
>
> Down with the parcels post. No more diabolical device was ever perfected by the big cities for stripping the small towns and country districts of all their surplus cash. Yet the rich mail-order houses wax fat with the dollars that are the property of local merchants.
>
> The individual can get rich only by selling more than he buys. Likewise a community can prosper only by selling to other communities more than it buys from them.
>
> The annual influx of students and other outsiders into our fruit belt to engage in fruit-picking and packing is an abuse that should be stopped at once. These people consume very little, saving their money to take back to Ann Arbor, Madison, Champaign, and other places from which they come. Thus, while making large sums off us, they give little or nothing in support of our industries.
>
> The county commissioners should be promptly impeached and removed from office for their action last Monday. We understand that the contract for the building of the new courthouse was let to the Knoxville firm only because their bid was $1,800 under that of our fellow-citizen, James R. Robertson. Robertson, as we are all aware, is an expert at this line of work, and was well equipped to do a handsome job. The only excuse which the commissioners give is the $1,800. But against this must be set down the $32,000 which will be paid to the Knoxville gang. Think of it! Sending $32,000 out of town to save a paltry $1,800.

The system of pecuniary evaluations often serves to obscure fundamental economic conditions.—An excellent example of the

way in which the system of evaluating wealth in terms of money tends to obscure actual economic conditions and lead to erroneous conclusions is found in the events of war and post-war years. The great rise in prices that occurred in the United States during the years from 1914 to 1920, accompanied as it was by a great increase in the quantity of circulating media, resulted in much confusion of thought on such matters as national prosperity, the distribution of this world's goods, profiteering, etc. We have finally come to learn that an increase in monetary wages does not benefit laborers so long as the prices of commodities which they must buy are proportionally, or more than proportionally, higher; but it took some time for people to appreciate fully that an increased monetary wage does not necessarily carry with it an increased standard of living.

Few people really appreciate the fact that figures purporting to show a great increase in national wealth are often largely illusory. In periods of rapidly rising prices the figures of national income, bank deposits, corporation earnings, etc., expand with great rapidity as measured in terms of a depreciating pecuniary unit. But in terms of actual goods and services there may be little, if any, increase.

III. THE QUANTITY OF MONEY REQUIRED BY A NATION

We have no doubt been giving the impression in this chapter that the quantity of money within a country is a matter of entire indifference, that actual goods and services are alone important. It is not strictly true, however, that the amount of currency supply is of no consequence in a society that is organized on a pecuniary basis. Indeed, under the conditions that actually obtain, an increasing volume of currency may sometimes be a matter of real importance, while at other times a decreasing supply would prove advantageous. How much money, then, does a nation need? To answer this question with entire satisfaction

is impossible at this juncture, but the general principles involved may at least be suggested.

It is necessary in this connection to distinguish between standard money and subsidiary forms of currency, which serve as media of exchange. As for the quantity of gold that is necessary, it may be pointed out, first, that a considerable volume of gold is required for the settlement of international trade balances, which—between gold-standard countries—have to be met in gold. The supply of gold should be large enough to permit the payment of foreign obligations without causing a serious impairment of the gold reserves that support a nation's monetary system. Under normal circumstances there is little difficulty in this connection; but there are times when an outflow of gold reserves may imperil the entire financial and business structure.[3]

Second, since the standard money, gold, is the regulator of all other forms of currency, including not only subsidiary coins and the ordinary forms of paper money, but also deposit or "check" currency created by the commercial banks, the stock must be large enough to insure the maintenance of all these other forms of currency at a parity with gold. The proper ratio of gold to the total quantity of currency redeemable in gold varies widely, depending upon the fundamental conditions of business, upon the length of time over which there has been no depreciation of these forms of currency, and upon the general attitude of the people with reference to the maintenance of a sound monetary system.

The amount of subsidiary currency that is required also varies. It should be adequate to meet the needs of retail trade and other exchange operations requiring the use of small currency denominations, as denoted by the demand for "change" at the banks; and the amount required for these purposes depends upon both the price level and the volume of business that is being transacted. The sharp rise in prices during the war, for

[3] See pp. 156–59.

instance, enormously increased the demand for subsidiary currency of all denominations. Seasons of great business activity have a similar effect.

Writers customarily argue that the *total quantity* of media of exchange, including standard money, subsidiary coins, paper currency, and checks, should be gradually expanded in proportion to the expansion in the volume of business. It is believed that under these circumstances the price level would remain unchanged, thus avoiding the serious maladjustments incident to fluctuating prices. This is, however, very difficult, if not impossible of attainment in practice; for the reason that the supply of gold money is dependent upon the productivity of the mines and the varying demands for gold in the arts; while the amount of money required for exchange purposes is dependent upon the rapidity of turnover, or the "velocity of circulation" of given units of money, upon the effectiveness with which the whole monetary and banking system is organized, as also upon the conditions of business activity. During the dull seasons of the year money may be relatively "easy," while in the months of great activity the scarcity of available funds may prove a serious handicap to business. What is needed is an elastic currency —one that will expand to meet unusual requirements.[4] Similarly, in years of great business activity there is a very heavy demand for funds. Business men, whether engaged in the production or in the marketing of goods, require "liquid" capital with which to finance their operations. If money is "tight" there is a limit to the expansion of business that can occur. A consideration of the expansibility required in our monetary system must, however, be postponed; for it involves an analysis of the mechanism of commercial banking.

QUESTIONS FOR DISCUSSION

1. What do you understand is meant by the term "pecuniary system"?
2. Has your experience been that most of the affairs of life are measured either directly or indirectly in terms of money?

[4] For a discussion of the problem of elastic currency see pp. 475–79.

3. Is it not true that "money talks"? Does it speak as loudly now as it did before the war?
4. "It is not so much a question of *how* you got it, as *have* you got it." What does "it" refer to? Do you agree with the sentiment?
5. "Not what a man *has*, but what he *is*." Which is more important (*a*) practically speaking? (*b*) ideally speaking?
6. In view of the domination of the pecuniary system over the activities and thoughts of men, does it seem to you probable that the free play of private initiative in quest of pecuniary gain tends to promote the general welfare: (*a*) always? (*b*) on the whole?
7. "From the individual point of view, an increased quantity of money is the equivalent of an increased quantity of wealth. From the social point of view this is not necessarily the case." Why or why not?
8. How would you measure the increase in the nation's wealth between 1914 and 1925?
9. If the pioneer settlers of America had possessed plenty of capital and wealth, do you think they would have been desirous of having more money? With greater wealth, would more or less money have been required, in fact?
10. What did the pioneers wish to do with additional quantities of money? Is it possible that there was a genuine scarcity of funds for business purposes?
11. Do you find any evidences of mercantilist doctrine in present-day discussions on foreign trade?
12. Precisely why is it that an inflow of gold into a country is considered advantageous?
13. Are there ever any circumstances under which a large and continuous flow of specie into a country is advantageous? disadvantageous?
14. What nations at the present time might be benefited by an inflow of specie? (See chap. xiv.)
15. Do you agree with any of the arguments given in the text for patronizing home industry?

REFERENCES FOR FURTHER READING

Cooley, Charles H.: *Social Process*, chaps. xxvi–xxviii.

Davenport, Herbert J.: *The Economics of Enterprise*, pp. 21–23.

Hamilton, Walton H.: "The Price System and Social Policy," *Journal of Political Economy*, January, 1918.

Moulton, Harold G.: *Principles of Money and Banking*, Part I, Selections Nos. 9–25.

CHAPTER V

THE REGULATION OF METALLIC CURRENCY

In order that money may perform effectively its various functions it has been necessary to develop a system of regulation that would give precision to business transactions involving the use of money. In this chapter we are to consider the various problems that have arisen in connection with the regulation of the different forms of metallic currency.

I. THE NECESSITY OF GOVERNMENT COINAGE

The first problem is that of coinage. If the pieces of metal which serve as money were not of uniform certified weight, it is evident that traders would be put to no end of inconvenience in weighing the currency tendered in the settlement of obligations. Because of the high value of gold and other precious metals a very slight variation in weight would involve considerable loss.

Quite as important as the question of uniform weight is that of uniform fineness. Bullion containing gold and silver varies widely in the amount of impurities contained therein; and it is accordingly necessary that it be assayed before coining. It is also easy to melt up gold and silver coins and debase them by adding copper or other metal. In order to permit exchanges to be made with certainty, it is, therefore, imperative that the fineness as well as the weight of coins be attested.

The objects to be attained by a good system of coinage are stated by Jevons as follows: (1) to prevent counterfeiting; (2) to prevent the fraudulent removal of metal from the coin; (3) to reduce the loss by legitimate wear and tear; (4) to make the coin an artistic and historical monument of the state issuing it and the people using it.

Coinage is now everywhere a government function though it appears that in earlier times there were numerous private mints. The reason for making the coinage of money a government prerogative is readily apparent. Even if private coiners could be relied upon always to put the same amount of pure metal into a coin, the various private coiners might nevertheless issue dollars of different weights and fineness. One would therefore always need to know *whose* dollar it was that he was to receive in payment of obligations; and we should have as many different prices as there were different pecuniary units. A monopoly of coinage is obviously necessary to insure uniformity of the currency. A private monopoly in the coining of money is clearly undesirable.

A defective coinage permits the operation of Gresham's law.—Whenever legal tender coins of the same face value, but of different weights or degrees of fineness, are in concurrent circulation the light-weight or base coins tend to drive the full-weight pure coins out of circulation. This fundamental monetary law derives its name from Sir Thomas Gresham, a royal agent of Queen Elizabeth, who first expressed in precise terms a phenomenon that had long been observed.

The reason why the light-weight or base coins will drive the full-weight and pure coins out of circulation—wholly or in part—is not difficult to see. In making foreign payments money is accepted only by weight; hence the full-weight and pure coins are sent out of the country in payment of foreign balances, while the base or light-weight coins are kept in the domestic circulation. Full-weight and pure coins may also be melted down and used as bullion. While the general public does not discriminate between coins unless there is a considerable variation in value, money changers, bullion dealers, and bankers are quick to derive a profit from such variations. History is replete with instances where light-weight and base coins have driven the "good coins" entirely out of circulation.

II. ECONOMIC AND SOCIAL EFFECTS OF A BAD COINAGE SYSTEM

Marked differences in the weight and fineness of coins, such as frequently occurred before the coinage process was perfected, usually lead to disastrous social consequences. For instance, Macaulay tells us:

> The old, crude, hammered coins of Great Britain were of varying weight, slightly irregular shape, and with unmilled edges. As a result they were easily clipped and mutilated. . . . . In the autumn of 1695 it could hardly be said that the country possessed, for practical purposes, any measure of value. It was a mere chance whether what was called a shilling was really tenpence, sixpence, or a groat. The results of some experiments that were tried at that time deserve to be mentioned. The officers of the exchequer weighed £57,200 of hammered money which had recently been paid in. The weight ought to have been 220,000 ounces. It proved to be under 114,000 ounces. Three eminent London goldsmiths were invited to send £100 each in current silver to be tried by the balance. The £300 ought to have weighed almost 1,200 ounces. The actual weight proved to be 624 ounces. The same test was applied in various parts of the kingdom with practically everywhere similar results.

Interestingly enough, although the penalties against clipping and mutilating the currency were most severe, it was almost impossible to check the practice. Says Macaulay:

> The severity of the punishment (clipping carried the penalty of death) gave encouragement to the crime. For the practice of clipping did not excite in the common mind a detestation resembling that with which men regard murder, arson, robbery, nay, even theft. The injury done by the whole body of clippers to society as a whole was indeed immense; but each particular act of clipping was a trifle. To pass a half-crown after paring a pennyworth of silver from it seemed a minute and almost imperceptible fault. Even while the nation was crying out most loudly under the distress which the state of the currency had produced, every individual who was capitally punished for contributing to bring the currency into that state had the general sympathy on his side. Constables were unwilling to arrest the offenders. Justices were unwilling to commit. Witnesses were unwilling to tell the whole truth. Juries were unwilling to pronounce the word guilty. There was a general conspiracy to prevent the law from taking its course . . . . the offenders who were convicted looked on themselves as murdered men, and were firm in the belief that

their sin, if sin it were, was as venial as that of a schoolboy who goes nutting in the wood of a neighbor.

The effects of bad coinage upon both industry and trade are vividly portrayed by Macaulay as follows:

It may well be doubted whether all the misery which had been inflicted on the English nation in a quarter of a century by bad kings, bad ministers, bad Parliaments, and bad judges was equal to the misery caused by bad crowns and bad shillings. Those events which furnish the best themes for pathetic or indignant eloquence are not always those which most affect the happiness of the great body of the people. The misgovernment of Charles and James, gross as it had been, had not prevented the common business of life from going steadily and prosperously on. While the honor and independence of the state were sold to a foreign power, while chartered rights were invaded, while fundamental laws were violated, hundreds of thousands of quiet, honest, and industrious families labored and traded, ate their meals, and lay down to rest, in comfort and security. But when the great instrument of exchange became thoroughly deranged, all trade, all industry, were smitten as with a palsy. The evil was felt daily and hourly in almost every place and by almost every class, in the dairy and on the threshing-floor, by the anvil and by the loom, on the billows of the ocean and in the depths of the mine. Nothing could be purchased without a dispute. Over every counter there . . . . was wrangling from morning to night. The workman and his employer had a quarrel as regularly as the Saturday came around. On a fair day or a market day the clamors, the reproaches, the curses, were incessant; and it was well if no booth was overturned and no head broken. No merchant could contract to deliver goods without making some stipulation about the quality of the coin in which he was to be paid. Even men of business were often bewildered by the confusion into which all pecuniary transactions were thrown. The simple and the careless were pillaged without mercy by extortioners whose demands grew even more rapidly than the money shrank. The price of the necessaries of life, of shoes, of ale, of oatmeal, rose fast. The laborer found that the bit of metal which, when he received it, was called a shilling, would hardly, when he wanted to purchase a pot of beer or a loaf of bread, go as far as a sixpence.

III. COINAGE REGULATIONS OF THE UNITED STATES

The science of the coinage of money has been sufficiently perfected in modern times so that the evils pointed out by Macaulay have practically disappeared. The rules and regula-

tions governing the coinage process at the present time in the United States illustrate the nature of the control of coinage by governments. To facilitate the conversion of bullion into coin, mints have been established in Philadelphia, Denver, and San Francisco, while assay offices, where bullion can be exchanged for currency, are located in New York, New Orleans, Carson City, Boise, Helena, Deadwood, Seattle, and Salt Lake City.

The government is willing to purchase for coinage purposes any amount of gold (in excess of $100) which may be offered at the mints and assay offices, paying for it at the rate of $20.67 per ounce of pure gold, or $18.60 per ounce of gold nine-tenths fine. The government makes no charge for the service of coining, but there are certain mint charges to cover costs. These include the charges for assaying or testing the fineness of the gold or the silver at the assay offices and the charges for melting the bullion, removing the impurities and base metal, and adding the copper alloy at the mints. The amount of these charges varies somewhat with the amount and nature of the base metals contained in the bullion.

The weights of the gold coins of the United States and the limits of the possible variations from those weights are fixed by law. The weight of the gold eagle is fixed at 232.2 grains of fine gold or 258 grains of standard gold, which is one-tenth copper alloy. The variation in weight which is allowed is called the "tolerance of the mint." For a new gold eagle or double eagle, the tolerance is half a grain; for the smaller gold coins the tolerance is a quarter of a grain. To make sure that new coins are of standard weight, the superintendent of each mint tests separately five coins out of every thousand. Four times a year the coins which have been tested are forwarded to the mint at Philadelphia where further tests of weight are made by a special assay commission. These tests are known as the "trial of the pyx" because the coins after the first tests are placed in a pyx until they are sent to Philadelphia.

An allowance for abrasion is made by the law. Where gold is used extensively as a circulating medium, a considerable loss

in the weight of the coin from wear is unavoidable. The law of the United States permits an abrasion equal to one-half of 1 per cent in twenty years, and proportionally for each year. For instance, an eagle at the end of twenty years would be current if it weighed only 256.71 grains instead of 258. Experiments have shown that this limit of abrasion is high enough to avoid frequent recoinage.

In case a gold coin is uncurrent on account of abrasion in the United States, the loss falls on the last holder. This appears to be an injustice since the loss is due to social wear. It has thus far been held, however, that the impossibility of determining whether the loss in weight is due to abrasion or sweating makes it necessary to charge the loss entirely to the last holder.

IV. GRESHAM'S LAW AND BIMETALLISM

We have seen that under a poor coinage system, with counterfeiting, clipping, and sweating everyday occurrences, the operation of Gresham's law tended to make it impossible to keep the better coins in circulation. It remains to discuss Gresham's law under other conditions—in connection with a bimetallic standard.

Bimetallism appears to have been adopted by all the leading European countries at the beginning of the modern era, without discussion—as a mere matter of course. Since both gold and silver were adapted to exchange purposes and since it was everywhere assumed that a large volume of currency was an unmitigated blessing, both metals appear to have been by common consent adopted as the standard of value. It was not until late in the eighteenth century that any agitation for the elimination of bimetallism developed, and, save in England, it was not until the latter half of the nineteenth century that the double standard was abolished.

The fundamental weakness of the bimetallic system lies in the fact that it permits the operation of Gresham's law.—With a bimetallic system gold and silver[1] together constitute the

[1] Other commodities might, of course, have been used.

pecuniary unit of value. For example, under the bimetallic system which existed in the United States between 1834 and 1873, 25.8 grains of gold, nine-tenths fine, were defined as a dollar; and 16 times that weight, or 412.5 grains, of silver, nine-tenths fine, were also defined as a dollar. Thus was derived the ratio of 16 to 1. Under bimetallism, Gresham's law must be stated in slightly different terms, as follows: When two metals of the same nominal value, but of different bullion value, are freely coinable at the mints and of unrestricted legal tender power, the metal that is overvalued at the mint tends to drive the other from circulation. The difficulty in this connection may best be illustrated by reference to some actual cases from our own bimetallic history.

Our first coinage law, passed in 1792, fixed the coinage ratio of silver to gold at 15 of the former to 1 of the latter. At the time, the relative value of gold and silver bullion in the commercial markets was about 15.3 to 1. That is to say, it took 15.3 ounces of silver to equal one ounce of gold in the form of bullion; but in the form of coins it took only 15 ounces of silver to equal an ounce of gold. Accordingly, silver had a greater value at the mint than it had in the form of bullion. Since specie must always be used in making international payments, gold rather than silver was always sent whenever a foreign obligation had to be settled. Gold was quite as good as silver for this purpose; but, on the other hand, it did not pay to take gold to the United States mint to be coined, because it had a greater exchange power as bullion than it had as coin. Similarly, it did not pay to ship silver out of the country in settlement of foreign obligations, because silver brought a higher return as compared with gold when it was taken to the mint and converted into coins. Accordingly, gold was driven out of circulation and silver became the actual standard of value.

In 1834 Congress changed the coinage ratio from 15 to 1 to 16 to 1. At the time the market ratio of silver to gold was about 15.7 to 1. With the new ratio it required 16 ounces of silver to equal one ounce of gold in the form of coins, but only 15.7

ounces of silver to equal an ounce of gold in the form of bullion. Thus gold became relatively overvalued at the mint, and accordingly gold was sent to the mint for coinage, whence it shortly reappeared in the channels of circulation. Indeed, even before the act was finally passed, a shipment of gold was en route from England to the United States to take advantage of its overvaluation at the United States mint.

These two illustrations will suffice to show the principle involved. Given full legal tender power and unrestricted coinage at the mint at a given ratio, one metal will drive the other from circulation, wholly or in part, whenever the market ratio varies from the mint ratio. Many more examples might be cited from our own history; and every country that has employed the double standard has witnessed the same phenomenon.

The controversy over bimetallism waited upon the perfection of coinage technique.—The reason why the controversy over bimetallism made so belated an appearance was that until the coinage process had been perfected, the cause for a disappearance of metal from circulation appeared to lie in the disparity in value between light-weight, debased coins, and full-weight, pure coins. The problem appeared to be merely one of coinage technique. But after the great improvement in the coinage process, it was observed that the cheaper of two standard metals still drove out the dearer one. Thus a disordered currency, due to poor coinage, counterfeiting, clipping, etc., had long obscured the operation of Gresham's law in connection with bimetallism. When this phase of the problem of monetary regulation eventually became clear, a movement for the abolition of the double standard gradually gained headway.

It required many generations to secure the adoption of a single gold standard by all the leading commercial nations.—The elimination of silver as a standard coin was opposed by silver miners for obvious reasons. It was also opposed by many people who confused money with wealth and accordingly believed that a reduction in the quantity of the circulating me-

dium would mean a net reduction in the nation's wealth. The establishment of a single gold standard was also strenuously opposed by the debtor class, who desired rising prices as a means of lessening the burden of their indebtedness.[2]

England was the first country to abandon bimetallism, the single gold standard having been adopted in the year 1816. Portugal was next in order, abolishing the free coinage of silver in 1854. Three years later, the states composing the German Zollverein and the empire of Austria entered into a monetary treaty and adopted the single silver standard. Shortly after the establishment of the German Empire in 1871, Germany, however, shifted to the single gold standard.

The states composing the Latin Monetary Union (France, Belgium, Switzerland, and Italy), which had been formed in 1865 in an endeavor to secure a uniform international double standard, one by one virtually[3] went over to the single gold standard in the decade of the seventies.

In 1873 the Scandinavian Monetary Union was formed by Norway, Sweden, and Denmark, and a single gold standard was adopted. In 1874 silver was entirely demonetized. Holland limited the coinage of silver in 1873 and two years later adopted a single gold standard. Spain began the restriction of silver money in 1876, and completed the process in 1878. In 1876 Russia suspended the coinage of silver for individuals, except as required for trade with China. In 1899 Russia adopted the single gold standard. Finland adopted the single gold standard in 1877, and in 1878 Austria-Hungary abolished the free coinage of silver. In 1893, after a protracted controversy, the mints of India were closed to the free coinage of silver. And in 1898 Japan definitely adopted the single gold standard.

Practically all of the small states of the world have also in recent years adopted either the single gold standard or the gold

[2] Cf. chap. ii, pp. 29–32.

[3] I say *virtually* because silver was usually retained as a standard coin; it was thus a "limping" standard that was adopted.

exchange standard, a variation of the principle of a single gold standard.[4]

In revising her coinage system in 1873 the United States omitted the standard silver dollars from the list of coins that might be struck at the mints, and thus became a single gold standard country. This law was modified, however, under the influence of the silver-mining interests and of those who desired a cheaper currency, and the coinage of silver was partially restored by the Bland-Allison Act of 1878. Another law, known as the Sherman Silver Purchase Act of 1890, still further increased the quantity of silver that might be coined, although it did not go so far as to restore the bimetallic system. The question of the restoration of bimetallism was the great issue in the presidential campaign of 1896. The Republican party, standing for the single gold standard for the United States until such time as the leading commercial nations of the world should agree to adopt "international" bimetallism, was successful at the polls by a narrow margin. The Democrats, under the leadership of Mr. Bryan, stood for national bimetallism at the ratio of 16 to 1. Four years later, on March 14, 1900, Congress enacted a law known as the Gold Standard Law, by which the United States definitely established gold as the pecuniary unit.

The operation of Gresham's law was to be prevented by the "compensatory action" of a double standard.—Those who advocated the retention of the bimetallic standard looked to what was known as the compensatory action to prevent a variation of the market from the mint ratio, and thus to prevent the familiar operation of Gresham's law. In brief, the argument is as follows:

With the mint ratio at 16 to 1, if silver should be worth in the market, say, 16.1 to 1, silver would be overvalued at the mint and gold undervalued. Silver would accordingly be in increased demand at the mint and gold in decreased demand,

[4] As a result of the Great War, a large number of nations were forced to abandon the gold standard—at least for a period of years. (See discussion pp. 152–54.

with the result that the value of silver would be raised and the value of gold lowered, which would operate to restore the ratio to 16 to 1. And if perchance the market ratio should become 15.9 to 1, then gold would be overvalued at the mint and silver undervalued, whereupon an increased demand for gold and a decreased demand for silver would bring the ratio back to 16 to 1. Since this compensatory action would work immediately and automatically as soon as any variation between market and mint ratio appeared, the readjustment would be practically instantaneous, thus effectively preventing the operation of Gresham's law. Scientific writers on the subject saw clearly enough that an international bimetallic system was necessary to a successful operation of this compensatory action; for if France, for instance, had a ratio of 15 to 1, whereas the United States had a ratio of 16 to 1, it would pay bullion dealers to ship silver from the United States to France, where a higher coinage value existed. Many economists have contended, however, that with international bimetallism the compensatory action would at all times insure a practical equalization of mint and market ratios.

During the protracted struggle over bimetallism, a number of international conferences were held with a view to securing the adoption of an international bimetallic standard. These conferences, however, came to naught. National jealousy was manifested in connection with the unit to be adopted—whether mark, franc, pound, or dollar should be chosen. In all these conferences, moreover, England was apathetic because she had for a great many years possessed a single gold standard and was on the whole well satisfied with the results attained under it; indeed, there was good reason for believing that England's commercial and financial supremacy was in no small degree due to the stability and certainty of her monetary system.

It remains to inquire whether, with international bimetallism, the compensatory action would have prevented the operation of Gresham's law and in the face of all contingencies have maintained a parity of market and mint ratio. Reference to

the table on page 74, which gives the figures of relative production of gold and silver over a long period of years, indicates that the supplies of these metals are dependent upon mining conditions. While in the years following 1849, for example, there was no noteworthy change in the relative demand for gold and silver, there was a tremendous increase in the supply of gold because of the discovery of the rich gold fields of California and Australia. The table on page 75 indicates the resulting effect upon the commercial ratio of the two metals.

If there were but minor variations in the supply of the two metals, it is possible that the compensatory action would operate to maintain the commercial ratio of gold and silver at a parity with the mint ratio. It is hardly probable, however, that the system would work under all circumstances. If the gold mines should be completely exhausted and if at the same time the output of silver should increase at a rate hitherto undreamed of, it is doubtful, to say the least, if the compensatory action could prevent a fall in the relative value of silver.

V. WHY GOLD BECAME THE SINGLE STANDARD

The reason why gold rather than silver has everywhere been chosen as the single standard is usually said to be the "inherent superiority of gold" for the purpose in hand. It will be of interest to consider this statement in the light of the data presented in the tables on pages 74 and 75.

After the coinage law of 1834, which fixed the mint ratio at 16 to 1, silver was undervalued at the mint and hence it was unprofitable to have it coined. The "crime of 1873" consisted, as noted above, in eliminating the standard silver dollar from among the list of coins that could be struck at the United States mint. Had the silver dollar not been undervalued at the mint—owing not to any inherent inferiority of silver but merely to the legislation which fixed the mint ratio at 16 to 1 when the market ratio was about 15.7 to 1—it is altogether improbable that it would have been demonetized. If, on the other hand, rich silver

mines, rather than gold mines, had been discovered in 1849, and the commercial ratio had in consequence changed to, say, 17 to 1, it would have been unprofitable to coin gold. Under these circumstances a revision of the coinage laws might conceivably have resulted in the demonetization of gold.

In any event, it was the great increase in the output of silver after 1874, occasioned by the discovery of the Comstock lode, that brought the silver issue to the front. In the absence of this, or similar discoveries, the silver issue might never have arisen; for so long as silver was worth more in the form of bullion than as coin no one had any interest in presenting it at the mint.

The controversy over bimetallism ended, as was noted above, with the presidential campaign of 1896. Reference to the statistics of production of gold after 1896 and to the price movement (as depicted on p. 27) will serve to indicate one reason why the bimetallic controversy has not been resumed. If the cyanide process had not been developed (for it is the chief cause of the great increase in gold production during the past thirty years), if the Klondike and South African fields had not been opened, and if prices had continued to fall after 1896 as they did in the previous decade, it is not at all improbable that bimetallism would have been a recurrent issue in American politics.

VI. PRODUCTION OF GOLD AND SILVER IN THE WORLD SINCE THE DISCOVERY OF AMERICA*

Period	Gold Annual Average for Period		Silver Annual Average for Period	
	Fine Ounces	Coining Value in Standard Silver Dollars	Fine Ounces	Coining Value in Standard Silver Dollars
1493–1520...	186,470	$ 3,855,000	1,511,050	$ 1,954,000
1521–1544...	230,194	4,759,000	2,899,930	3,740,000
1545–1560...	273,596	3,656,000	10,017,940	12,952,000
1561–1580...	219,906	4,546,000	9,628,925	12,450,000
1581–1600...	237,267	4,905,000	13,467,635	17,413,000
1601–1620...	273,918	5,662,000	13,596,235	17,579,000
1621–1640...	266,845	5,516,000	12,654,240	16,361,000
1641–1660...	281,995	5,828,000	11,776,545	15,226,000
1661–1680...	297,709	6,154,000	10,834,550	14,008,000
1681–1700...	346,095	7,154,000	10,992,085	14,212,000
1701–1720...	412,163	8,520,000	11,432,540	14,781,000
1721–1740...	613,422	12,581,000	13,863,080	17,924,000
1741–1760...	791,211	16,356,000	17,140,612	22,162,000
1761–1780...	665,666	13,761,000	20,985,591	27,133,000
1781–1800...	571,948	11,823,000	28,261,779	36,540,000
1801–1810...	571,563	11,815,000	28,746,922	37,168,000
1811–1820...	367,957	7,606,000	17,385,755	22,479,000
1821–1830...	457,044	9,448,000	14,807,004	19,144,000
1831–1840...	652,291	13,484,000	19,175,867	24,793,000
1841–1850...	1,760,502	36,393,000	25,090,842	32,440,000
1851–1855...	6,410,324	132,513,000	28,488,597	36,824,000
1856–1860...	6,485,262	134,083,000	29,095,428	37,618,000
1861–1865...	5,949,582	122,989,000	35,401,972	45,772,000
1866–1870...	6,270,086	129,614,000	43,051,583	55,663,000
1871–1875...	5,591,014	115,577,000	63,317,014	81,864,000
1876–1880...	5,543,110	114,586,000	78,775,602	101,851,000
1881–1885...	4,794,755	99,116,000	92,003,944	118,955,000
1886–1890...	5,461,282	112,895,000	108,911,431	140,815,000
1891–1895...	7,882,565	162,946,000	157,581,331	203,742,000
1896–1900...	12,446,939	257,301,100	165,693,304	214,229,700
1901–1905...	15,606,730	322,619,800	167,995,408	217,206,200
1906–1910...	20,971,575	433,520,960	197,251,516	255,032,260
1911–1915...	22,259,309	460,140,714	202,474,938	261,785,784
1916.....	22,031,094	455,423,136	180,801,919	233,764,096
1917.....	20,345,528	420,579,351	186,125,017	240,646,486
1918.....	18,614,039	384,786,306	203,159,431	262,670,779
1919.....	17,698,184	365,853,933	179,849,940	232,533,256
1920.....	16,130,110	333,423,975	173,296,382	224,059,968
1921.....	15,974,962	330,231,792	171,285,542	221,460,095
1922.....	15,451,945	319,420,063	209,815,448	271,276,538
1923.....	17,750,765	366,940,884	242,418,410	313,429,863

* From *Annual Report of Director of the Mint.*

VII. COMMERCIAL RATIO OF GOLD AND SILVER SINCE 1687*

Year	Ratio	Year	Ratio	Year	Ratio
1687	14.94	1827	15.74	1876	17.88
1700	14.81	1828	15.78	1877	17.22
1705	15.11	1829	15.78	1878	17.94
1710	15.22	1830	15.82	1879	18.40
1712	18.31	1831	15.72	1880	18.05
1715	15.11	1832	15.73	1881	18.16
1720	15.04	1833	15.93	1882	18.19
1725	15.11	1834	15.73	1883	18.64
1730	14.81	1835	15.80	1884	18.57
1735	15.41	1836	15.72	1885	19.41
1740	14.94	1837	15.83	1886	20.78
1745	14.98	1838	15.85	1887	21.13
1750	14.55	1839	15.62	1888	21.99
1755	14.68	1840	15.62	1889	22.10
1760	14.14	1841	15.70	1890	19.76
1765	14.83	1842	15.87	1891	20.92
1770	14.62	1843	15.93	1892	23.72
1775	14.72	1844	15.85	1893	26.49
1780	14.72	1845	15.92	1894	32.56
1785	14.92	1846	15.90	1895	31.60
1790	15.04	1847	15.80	1896	30.66
1795	15.55	1848	15.85	1897	34.20
1800	15.68	1849	15.78	1898	35.03
1801	15.46	1850	15.70	1899	34.36
1802	15.26	1851	15.46	1900	33.33
1803	15.41	1852	15.59	1901	34.68
1804	15.41	1853	15.33	1902	39.15
1805	15.79	1854	15.33	1903	38.10
1906	15.72	1855	15.38	1904	35.70
1807	15.43	1856	15.38	1905	33.87
1808	16.08	1857	15.27	1906	30.54
1809	15.96	1858	15.38	1907	31.24
1810	15.77	1859	15.19	1908	38.64
1811	15.53	1860	15.29	1909	39.74
1812	16.11	1861	15.50	1910	38.22
1813	16.25	1862	15.35	1911	38.33
1814	15.04	1863	15.37	1912	33.62
1815	15.26	1864	15.38	1913	34.19
1816	15.28	1865	15.44	1914	37.37
1817	15.11	1866	15.43	1915	39.84
1818	15.35	1867	15.57	1916	30.11
1819	15.33	1868	15.59	1917	23.09
1820	15.62	1869	15.60	1918	19.84
1821	15.95	1870	15.57	1919	16.53
1822	15.80	1871	15.70	1920	15.31
1823	15.84	1872	15.63	1921	25.60
1824	15.82	1873	15.92	1922	27.41
1825	15.70	1874	16.17	1923	29.52
1826	15.76	1875	16.59	1924	27.76

* From *Annual Report of Director of the Mint.*

VIII. THE REGULATION OF SUBSIDIARY METALLIC CURRENCY

The subsidiary metallic currency of the United States consists of the silver dollar, half-dollar, quarter, dime, nickel, and one-cent piece. All of these coins now have a face value greater than their value in the form of bullion. Such coins are called *token* coins. They are maintained at par with gold, the standard metal, by a process of redemption—direct in the case of cents, nickels, dimes, quarters, and half-dollars, indirect in the case of silver dollars. The following are the redemption provisions of the United States currency laws:

Fractional silver coins—half-dollars, quarters, and dimes—and *minor coins*—nickels and cents—may be presented, in sums or multiples of twenty dollars, to the Treasurer of the United States or to an Assistant Treasurer for redemption or exchange into lawful money. Being redeemable in gold, they are as good as gold.

Fractional silver coins were originally of proportional weight with the silver dollar; but since 1853 they have contained about 7 per cent less silver. The nominal value of two half-dollars, four quarters, and ten dimes, respectively, is obviously equal to one gold dollar. The value of the bullion content varies with the fluctuations in the price of silver bullion.

The nickel, or five-cent piece, is a combination of copper and nickel—three-fourths copper and one-fourth nickel. The cent is composed of 95 per cent copper and 5 per cent tin and zinc.

Both fractional silver coins and minor coins are struck only as the needs of trade, as evidenced by the demand for "change" at the banks, require. The government purchases the bullion required in the market; and the profit—called seigniorage—which arises from coining dollars whose face value is greater than that of the bullion content, goes to the government.

The *silver dollar* is still designated a standard coin of the

United States, although since 1873 its coinage has been limited, and since 1900 it has been to all intents and purposes definitely in the position of a subsidiary coin. Because of the historical importance of silver and the persistency of long-established custom, the silver dollar is still called a standard coin, and is not directly redeemable in gold. A system of indirect redemption has been established, however, which has thus far proved quite as effective as would specific redemption in gold. In all payments due to itself, the Treasury will accept silver on an equality with gold, and in all treasury disbursements gold is paid out whenever that metal is desired. In no case does the Treasury force silver upon an unwilling person. Moreover, it is provided by the Currency Act of 1900 that silver shall be maintained at a parity with gold, and that it shall be the duty of the Secretary of the Treasury to maintain such parity. In case the foregoing method of indirect redemption did not prove efficacious the Secretary would therefore be obliged to resort to direct means, and redeem silver dollars in gold.

IX. LEGAL TENDER PROVISIONS FOR METALLIC CURRENCY

The purpose of legal tender is to legalize the settlement of obligations. If business is to be conducted both with dispatch and certainty and if endless disputes are to be avoided over the kind and quality of the thing which is tendered in payment of debts, there must be some lawful means of payment. Money has therefore been given the quality of legal tender. It is to be noted, however, that the tender of money in payment of an obligation may be refused by the person to whom the money is proffered, without an automatic cancellation of the debt. The law holds that the tender must be made continuous. The payment of interest on the obligation, however, automatically ceases with the tender of lawful money, and certain legal advantages are lost to the creditor.

Gold coin is legal tender at its nominal or face value for all

debts, public and private, when not below the standard weight and limit of tolerance prescribed by law; and when below such standard weight and limit of tolerance it is legal tender in proportion to its weight.

Silver dollars are legal tender at their nominal or face value in payment of all debts, public and private, without regard to the amount, except where otherwise expressly stipulated in the contract.

Fractional silver is legal tender for amounts not exceeding ten dollars in any one payment.

The minor coins of nickel and copper are legal tender to the extent of twenty-five cents.

QUESTIONS FOR DISCUSSION

I. COINAGE

1. Why can we not trust individuals to make good money, as well as to make good shoes?
2. Which would be more difficult to detect, impure or underweight pieces of uncoined metal? Which would be easier to adjust to the satisfaction of traders?
3. In weighing gold, how much difference would it make if the scales weighed an ounce light?
4. Which of the various objects sought in a good coinage system is the most difficult of attainment?
5. Enumerate the specific conditions necessary to the operation of Gresham's law.
6. If you had the opportunity of paying a debt to a friend in full-weight or light-weight coins, which would you use? which in paying a debt to a foreigner?
7. If a bullion dealer wished to melt up coins, would he use new or abraded coins?
8. What is meant by free coinage? by gratuitous coinage?
9. Do we have both free and gratuitous coinage of gold in the United States?
10. What is meant by the "tolerance of the mint"? Why is this permitted?
11. What is the purpose of the "trial of the pyx"? of the Assay Commission?
12. Who should suffer the loss when a coin is found to be legally uncurrent on account of abrasion? Why?

13. Do you think that Macaulay overemphasizes the social evils of a bad currency?

II. BIMETALLISM

14. How do you account for the fact that bimetallism was everywhere an accepted principle in the sixteenth and seventeenth centuries?
15. If the coinage or mint ratio is 16 to 1 and the market ratio 15.5 to 1, show what would happen under the operation of Gresham's law.
16. Between 1792 and 1834 the mint ratio in the United States was 15 to 1. Consult the table of commercial ratios of gold and silver and indicate what must have occurred.
17. In 1834 the mint ratio was changed to 16 to 1. What must have occurred then, in view of the market ratio?
18. Suppose the "crime of '73" had been committed in, say, 1860: When would it have been discovered? Suppose the Currency Act of 1873 had been passed a year later: Could the silver dollar then have been omitted, without controversy, from the list of coins that could be minted?
19. Three causes may be assigned for the growth of an agitation for monometallism: (*a*) the decline of mercantilism; (*b*) the improvement of coinage technique and the consequent revelation of the evils of bimetallism in connection with international operations; (*c*) the increase in the quantity of precious metals and hence in the supply of currency. Which do you think has been most important? (Consult the tables on pp. 74 and 75 in connection with the principal dates of the bimetallic controversy.)
20. Study the table showing the commercial ratios of gold and silver and see if you can find a reason for the demonetization of silver rather than gold. Do you attribute it to the inherent inferiority of silver?
21. "Gold has been proved to be the most satisfactory metal for monetary uses." Does this apply to its use as a medium of exchange, as a pecuniary unit of calculation, or as a standard for deferred payments?
22. Do the statistics of production of gold show, as a matter of fact, that gold is more likely to prove of stable value than silver?
23. If the annual gold production had declined after 1896, rather than increased, might our subsequent monetary history have been different? If so, how?
24. How do you account for the great fluctuation in the value of silver since 1914?

III. THE REGULATION OF FRACTIONAL SILVER CURRENCY

25. After 1850 fractional silver coins disappeared from circulation. Why did they not disappear earlier? (Consult tables on pp. 74 and 75.)

26. An act of 1853 reduced the weight of fractional silver coins by about 7 per cent. What would be the result of such a reduction? (Consult the table of commercial ratios.)
27. When fractional silver coins were thus reduced in weight, what steps would have to be taken to prevent them from driving gold out of circulation?
28. Is there any good reason at the present time for making fractional silver pieces of less proportional weight than the silver dollar? At what price per ounce for silver bullion would it pay to melt up fractional silver coins?
29. How is the parity of the fractional silver pieces maintained?
30. What is meant by legal tender? Is it necessary that money be legal tender in order to pass current?
31. X owes Y ten dollars, and the debt is due. They are riding together on a railroad train. Seeing a bandit entering the car, X says to Y, "Here is the ten dollars I owe you." What would you say if you were Y?
32. Would contracts like the following be binding in the United States: (*a*) "I promise to pay for value received, one thousand dollars in lawful money, except in silver"? (*b*) "I promise to pay for value received, one thousand dollars in lawful money, except in gold"? (*c*) "I promise to pay for value received, one thousand silver dollars"? (*d*) "I promise to pay for value received, two thousand fifty-cent pieces"? (*e*) "I promise to pay for value received, one thousand bushels of wheat"?
33. Why limit the legal tender power of the silver dollar? Why give any legal tender power to fractional silver coins?

REFERENCES FOR FURTHER READING

Holdsworth, John Thom: *Money and Banking*, chap. iii.

Jevons, W. S.: *Money and the Mechanism of Exchange*, chaps. v, vi, and vii.

Laughlin, J. Laurence: *Principles of Money*, chaps. xi and xii.

Moulton, Harold G.: *Principles of Money and Banking*, chaps. ii, iv, and vi.

Phillips, Chester A.: *Readings in Money and Banking*, chaps. vi and vii.

Scott, William A.: *Money and Banking*, chap. ii.

White, Horace: *Money and Banking*, Book I, chaps. ii–vi.

CHAPTER VI

THE REGULATION OF GOVERNMENT PAPER CURRENCY

Paper money is of so many different kinds, and the principles of regulation involved are so numerous and diverse that a clean-cut treatment of the subject is difficult. A broad distinction may be made, however, between government and bank paper money. The former is issued by the state for the purpose of meeting current obligations when the Treasury is empty, or to provide an inexpensive and convenient medium of exchange by substituting in the channels of circulation paper bills for metallic money; the latter is issued by privately managed institutions which are seeking private profit from the making of loans. The principles of regulation underlying these two forms of paper currency are fundamentally different, and they cannot be satisfactorily treated together. Since the regulation of bank paper is tied up with the whole theory of credit and banking, treatment of it is reserved for subsequent discussion.[1]

Government paper is of three main types: (1) mere representative paper; (2) convertible fiduciary paper; and (3) inconvertible or fiat currency. Representative money is backed dollar for dollar by specie, and the paper certificates which circulate are merely claim checks to an equivalent in coin. Such paper gives rise to no problems of regulation. Convertible *fiduciary* paper is exchangeable for specie, but is not covered by a coin reserve of 100 per cent. Unlike representative paper, it involves an element of trust or credit and affords a means of expanding the quantity of money beyond what is possible with the use of specie alone. Numerous devices have been

[1] See chapters on commercial banking.

developed, as we shall see, by means of which redeemability may be insured without a full specie reserve, and there has been a long-continued discussion as to the most effective means for the purpose, resulting in the development of a fairly definite body of principles. Similarly, there has been a prolonged controversy over the advantages and the practicability of inconvertible paper currency, or what may be called the "fiat" or paper standard of value. This controversy has disclosed some of the most interesting fallacies in the whole realm of political economy, and the experiences of mankind with irredeemable paper money have been among the most costly lessons that society has ever had to learn. The lesson has, moreover, even yet not been thoroughly learned.

I. ARGUMENTS FOR AND AGAINST FIAT PAPER CURRENCY

The history of inconvertible or fiat currency is practically contemporaneous with that of the controversy over bimetallism; indeed, the underlying cause of the advocacy of fiat paper money is virtually identical with that underlying the popular agitation for the retention of bimetallism, namely, the desire for a plentiful supply of cheap currency. The following quotations taken from various addresses and "programs" will serve to reveal the nature of the prevalent arguments in favor of irredeemable paper currency.

1. We (speaking for the Farmers' Alliance in the nineties) believe in the people making their own money; we believe in the government, which is simply the agent of the people, issuing their money directly to them without going around Robin Hood's barn to find them (that is, without the intermediation of banks).

2. If the people had twice as much currency in their pockets as now, their prosperity would be greatly increased.

3. I am in favor of more currency. We haven't enough currency per capita to do the business of the country. (Written in 1894.)

4. I propose that the government, only, shall issue money for the public use. In order to do this, I would have it issue immediately 500,000,000 new treasury notes of the denomination of one dollar each.

So much of this amount as was necessary the government should loan to the people; 10 per cent of each loan to be paid back each year; 9 per cent to be applied to the extinction of the principal; 1 per cent covering the interest. In that way it would be possible to redeem every mortgaged farm in the land within fifteen years.

5. Banks should not be allowed to issue notes. These should be printed and put out by the government. The tariff should be reduced till there is a deficit in the Treasury, and then greenbacks should be printed and issued to pay all claimants. These should not be redeemable in metal money. Each bill should bear the legend, "One dollar, receivable for all dues and debts." This would make it receivable for all taxes and import duties and a legal tender. This would keep it perpetually at par.

The argument against irredeemable paper currency was trenchently stated as long ago as the American Revolution by John Witherspoon, in the following words:

The irredeemable paper money such as was issued by the Continental Congress and the various state legislatures during the Revolution, that is, paper bills stating that the person holding them is entitled to receive a certain sum specified in them, is not, properly speaking, money at all. It is barely a sign without being a pledge or standard of value, and therefore is essentially defective as a medium of universal commerce. To arm such bills with the authority of the state, and make them a legal tender in all payments, is an absurdity so great that it is not easy to speak with propriety upon it. It has been found, by the experience of ages, that money must have a standard value, and if any prince or state debase the metal below the standard, it is utterly impossible to make it succeed. How can it be possible to make that succeed which has no value at all? In all such instances there may be great injuries done to particular persons by wiping off debts; but to give such money general currency is wholly impossible. The measure carries absurdity on its very face. Why will you make a law to oblige men to take money when it is offered them? Are there any who refuse it when it is good? If it is necessary to force them, does this not demonstrate that it is not good? We have seen, indeed, this system produce a most ludicrous inversion of the nature of things. For two or three years we constantly saw and were informed of creditors running away from their debtors and the debtors pursuing them in triumph, and paying them without mercy.[2]

Paper currency would not depreciate if the supply were controlled.—Many economists insist that, if properly controlled,

[2] Adapted from *Works*, IV, 222–23.

irredeemable paper would not depreciate in value. For example, Ricardo says:

> By limiting the quantity of money it can be raised to any conceivable value. It is on this principle that paper money circulates; the whole charge for paper money may be considered as seigniorage. Though it has no intrinsic value, yet by limiting its quantity, its value in exchange is as great as an equal denomination of coin or of bullion in that coin. There is no point more important in issuing paper money than to be fully impressed with the effects which follow from the principle of limitation of quantity. It is not necessary that paper money should be payable in specie to secure its value; it is only necessary that its quantity should be regulated according to the value of the metal which is declared to be the standard.
>
> Experience, however, shows that neither a state nor a bank ever has had the unrestricted power of issuing paper money, without abusing that power; in all states, therefore, the issue of paper money ought to be under some check and control; and none seems so proper for that purpose as that of subjecting the issuers of paper money to the obligation of paying their notes, either in gold coin or in bullion.[3]

II. PAPER MONEY AS AN EMERGENCY DEVICE

While there have always been many who believed that irredeemable paper is the ideal money at all times, the actual issue of such currency has usually been the result of pressing financial needs on the part of governments. The issuers of the currency have sought to justify their acts as emergency measures, particularly as a means of meeting the financial exigencies of war. In our own history, in addition to the early Colonial and Revolutionary experiences, both the South and the North during the Civil War issued large quantities of paper with which to meet the immediate requirements of government. European governments have followed similar practices.

Inflation of the paper currency is usually a result of budgetary difficulties.—When government revenues from taxation or from loans are not sufficient to meet unavoidable current obligations, there is no other practical alternative to the issue of money of one sort or another. This has been the case from the very be-

[3] *Principles of Political Economy.*

ginning of organized government. The method of procuring the money required by the government has, however, varied from age to age.

The kings of the Middle Ages procured for the royal treasury the funds required, by periodically calling in the coins of the realm, reducing their weight or fineness, and then returning them to the channels of circulation at the same old face value. In those days taxation machinery was ineffective and there was no large supply of liquid funds available; hence, debasing the currency was often the only practical means of procuring the money with which to defend the realm from foreign invaders.

The kings have been roundly scolded by historians for their nefarious practices. But we, the people, have followed the same practice since we have been rid of the kings. In the French Revolution, in the American Revolution, and in our own Civil War, we had no more regard for the sanctity of the established currency than did the kings of the earlier days. It is true that we did not debase the *metallic* currency; instead we had learned the advantages of paper money, that is, of government promissory notes. We therefore made an improvement upon the kings' methods. It was less costly to issue irredeemable paper notes, and once the printing presses were in good working order, it was much quicker than tampering with the metallic money.

In the case of the French and American revolutionary governments there was clearly some justification for the resort to paper money. They possessed no effective taxation machinery, and well-established bond markets and investment banking institutions had not yet been developed. Hence there were no other means of procuring adequate liquid funds for the purposes in hand. There was less excuse, it is true, during the Civil War, so far at least as the North was concerned; but even here it needs to be borne in mind that at that time our investment banking machinery was but little developed, and under all the circumstances that existed it is easy to understand why there should

have been a partial resort to the use of irredeemable paper currency.

It is interesting to note, however, that in the fifty years preceding the Great War it was commonly believed that society had learned that it was absolutely essential to keep the fiscal and monetary functions of government separate. The fiscal operations of the government constituted one problem; and the maintenance of a stable standard of value, the issuing of currency for the requirements of trade, constituted another and wholly separate problem. This was delegated to banking institutions, lest the treasuries fall into temptation.

Then came the Great War. Every belligerent nation of Europe under the tremendous pressure of the financial requirements of war again descended from grace. Like the kings of the fifteenth century when the enemy was at the gates, the people of the twentieth century once more debased the currency in order to get the indispensable revenues required. The methods, however, showed a still further refinement; for now, in the main, instead of mutilating the metallic currency or issuing government promises to pay, the banks—theoretically independent—were called upon to do the issuing. The metallic currency was indeed accumulated in the coffers of the banks, but it was found more effective to use it there as a basis for note issues than to return it reduced in size and fineness to the channels of circulation.

We do not need to flatter ourselves in the United States that if the war had continued for two or three more years that we could have avoided currency debasement. Indeed, as it was, the Federal Reserve managers found it a matter of expediency to formulate their policies in the light of Treasury requirements.

Since the Great War many European countries have continued to issue currency as a means of covering budget deficits. When—for whatever reasons—the receipts from taxation prove insufficient to cover the government's obligations, a resort to borrowing is absolutely necessary. In the case of Germany and

numerous countries of Central and Eastern Europe, it was impossible to borrow the great sums needed through the sale of bonds. Hence, a resort to the banks, through the sale of short-time promises to pay, was the only alternative to insolvency. The process involves the government's giving its promissory notes in exchange for bank notes—which pass as legal tender currency, notwithstanding the fact that they are not redeemable in gold. The ultimate effects upon the German currency are indicated in the table on page 25. On this page is a reproduction of a Reichsbank note for 100,000,000,000 marks,

GERMAN "SMALL CHANGE" IN 1923

worth at the time of issue a little over two cents in American money.

In the case of France, a considerable volume of borrowing from the banks occurred during the war period and up to the end of 1920. Thereafter it became possible for a time to borrow the sums needed through the sale of bonds; but in 1924 the bond market proved unable to absorb the new loans that were floated and the government had once more to resort to the bank of France for bank notes with which to meet its current operating expenses.[4] The method of covering budget deficits by the

[4] For a full discussion of this problem the reader is referred to Moulton and Lewis, *The French Debt Problem,* chap. vi.

issue of bonds may temporarily prevent a demoralization of the currency, but unless the budget can be ultimately balanced, the currency will in the end be completely disorganized.

The striking feature of the history of paper money is that once an issue is started it becomes well-nigh impossible to prevent an almost indefinite increase. Let the first step be ever so hesitant, when once it has been taken other issues are almost certain to follow in rapid succession until the entire monetary system is deranged and the stability of the pecuniary unit in which prices are expressed is completely undermined. The effects of an issue of irredeemable paper currency have always been disastrous in the end, resulting not only in a general disruption of financial and business activities but also in unsettling the customary ethical concepts which lie at the very basis of modern commercial life. Some of these effects were noted above in the chapter on "The Standard for Deferred Payments."

III. METHODS OF REGULATING PAPER CURRENCY

The following methods have been used in regulating issues of government paper currency:

1. *Full specie reserve method.*—By this method the issuing government retains in its coffers metallic money equal in amount to the paper issued. The paper is thus a true representative currency, serving merely in lieu of so much specie.

2. *Percentage specie reserve method.*—With this method a specie reserve equal to a certain fixed percentage of the paper must be held by the issuing government. The amount of paper may be changed with changes in the amount of reserve.

3. *Minimum specie reserve method.*—A certain fixed minimum quantity of specie is held as reserve, and the paper outstanding against this may or may not be increased or decreased.

4. *The uncovered issue method.*—A certain fixed amount of paper may be issued, secured by bonds, etc., and beyond this

amount any quantity may be issued if backed by a full specie reserve.

5. *The elastic uncovered issue method.*—This method differs from the foregoing only in that the uncovered issue may be extended in time of emergency.

6. *Property reserve method.*—Land or other real estate, or personalty such as bonds, stocks, etc., may be used as security for government paper currency.

7. *Revenue payments method.*—A free issue of paper money which relies on its acceptability for taxes in lieu of coin to keep up its value.

8. *The deferred convertibility method.*—Notes may be issued promising to pay metallic money at some future date, either definitely fixed, or dependent upon political or other contingent events.

9. *Fiat method.*—The government may give freely issued paper full legal tender power and command its acceptance in payment of all obligations. It is irredeemable.

10. *Limited issue method.*—A fiat issue may be definitely restricted in amount in order that an active demand may prevent depreciation.

11. *Force-of-habit method.*—An issue once redeemable may circulate by force of custom after the government has been absolved from the obligation of redemption.

Of these various methods of maintaining the value of paper currency the first five are the ones now most commonly used in the important commercial countries of the world. Of those which do not involve a full specie reserve, the second, third, and fourth are the most frequently employed at the present time. The various methods used in the United States at the present will be shown in the section which follows. It remains to state that while this chapter is devoted only to government paper currency, some of the methods of regulation here outlined are worked out through banking institutions.

IV. FORMS OF GOVERNMENT PAPER CURRENCY IN THE UNITED STATES

The forms of government paper currency in the United States at the present time and the main facts as to their nature and history are as follows:

a) *Gold certificates.*—Gold certificates are mere claim checks to like quantities of gold held in the Treasury. These certificates date back to the Civil War period. The inconvenience of gold for everyday exchange transactions led to an authorization by the Secretary of the Treasury to receive gold in sums of not less than twenty dollars and to issue certificates in its place. None may be issued in a denomination of less than ten dollars; and at least one-fourth of the certificates shall be in denominations of fifty dollars or less. They are designed to meet the needs of our large monetary transactions.

b) *Silver certificates.*—The use of silver certificates, which are claim checks to silver deposited in the Treasury, was authorized by the Bland-Allison Act of 1878. Silver currency was redundant and the purpose of authorizing the issue of certificates was to encourage the circulation of silver, in substitute form. The Secretary of the Treasury is required to accept any quantity of silver, in sums not less than ten dollars, and to issue as substitutes therefor silver certificates in denominations of ten dollars and less.

c) *Treasury notes of 1890.*—These government notes were issued as a means of purchasing silver bullion under the terms of the Sherman Silver Purchase Act of 1890, repealed in 1893. In 1893 there were $153,931,002 outstanding, but they are now canceled as fast as received at the Treasury, and are therefore gradually disappearing from circulation. There were outstanding on June 1, 1925, only $1,389,897. When retired, their place is taken directly by silver dollars coined from the bullion originally purchased with the notes. Indirectly their place is filled in the channels of circulation by a silver certificate issued as representative of the silver dollar.

d) United States notes.—United States notes, or greenbacks, were first issued during the Civil War to meet the expenses of the government. Since 1878 there have been outstanding $346,681,016. They are backed by a cash reserve of $150,000,000, held as a special fund in the Treasury. The amount of these notes never increases or decreases, since the law provides that any notes redeemed in cash at the Treasury shall be promptly reissued. They have usually been issued in five- and ten-dollar denominations; but because of the dearth of small bills that was occasioned by the great increase in prices during the war, and hence in the quantity of money required to carry on our trade and business operations, they have since been issued in one- and two-dollar denominations.

V. REDEMPTION OF UNITED STATES PAPER CURRENCY

The provisions governing the redemption in specie of the various forms of government paper currency in the United States at the present time are as follows:

United States notes are redeemable in United States gold coin in any amount by the Treasurer and all the Assistant Treasurers of the United States.

Treasury notes of 1890 are redeemable in United States gold coin in any amount by the Treasurer and all the Assistant Treasurers of the United States.

Gold certificates, being receipts for gold coin, are redeemable in such coin by the Treasurer and all Assistant Treasurers of the United States.

Silver certificates are receipts for standard silver dollars deposited, and are redeemable in such dollars only.

VI. LEGAL TENDER PROVISIONS OF UNITED STATES PAPER CURRENCY

The legal tender provisions applicable to the various forms of United States paper currency at the present time reflect the exigencies of our financial history. Some of the "exceptions"

which were important at one time or another are now of no significance.

Treasury notes of 1890 are legal tender for all debts, public and private, except where otherwise expressly stipulated in the contract. They are thus on exactly the same basis as the standard silver dollars.

United States notes, or greenbacks, are legal tender for all debts, public and private, except duties on imports and interest on the public debt. These exceptions were an outgrowth of Civil War financial exigencies. Since the greenbacks were depreciated in value, to have made them legal tender for interest on government bonds would have made it impossible to sell bonds except at a tremendous discount. And since the government elected always to pay interest on government bonds in specie, it was necessary to insist that the customs duties, the principal source of revenue, should be paid in specie rather than in depreciated greenbacks. Upon resumption of specie payments on January 1, 1879, the United States notes, then at a parity with gold, were, by Treasury order, made acceptable in payment of duties on imports. The wording of the original law, however, has not been changed. Since they are now at a parity with gold, it is obvious that the restriction on their use in the payment of interest on the public debt is also a dead letter.

Gold certificates were not given a specific grant of power in the settlement of private debts until 1920. But, since they were always receivable for public dues and were redeemable in gold, no one had any occasion to refuse to accept them; indeed, few people ever realized that they were not legal tender. The belated grant of legal tender power is therefore only an act of supererogation. *Silver certificates* have never been made legal tender.

QUESTIONS FOR DISCUSSION

1. What are the chief arguments for: (*a*) representative paper currency? (*b*) fiduciary convertible paper? (*c*) fiat or irredeemable paper? Do you think these arguments are sound?
2. Over which kind of paper money do you think the greatest controversy has been waged?

VII. CIRCULATION STATEMENT OF UNITED STATES MONEY, JUNE 1, 1925

Kind of Money	Stock of Money	Held in the Treasury	Held by Federal Reserve Banks and Agents	In Circulation	
				Amount	Per Capita
Gold coin and bullion	$4,395,960,007	$3,690,339,479	$ 268,008,248	$ 437,612,280	$ 3.84
Gold certificates	(1,575,805,949)*	.....	603,368,350	972,437,599	8.53
Standard silver dollars	521,912,851	452,409,368	15,595,537	53,907,946	.48
Silver certificates	(433,628,770)*	.....	62,947,769	380,681,001	3.34
Treasury notes of 1890	(1,389,897)*	.....	.....	1,389,897	.01
Subsidiary silver	283,976,151	7,827,924	16,253,958	259,894,269	2.28
United States notes	346,681,016	3,874,419	58,007,460	284,799,137	2.50
Federal Reserve notes	1,979,379,530	542,962	299,003,972	1,679,832,596	14.74
Federal Reserve bank notes	7,445,193	185,493	150,324	7,109,376	.06
National bank notes	739,569,469	17,548,081	25,372,890	696,648,498	6.11
Total June 1, 1925	$8,274,924,217*	$4,172,727,726†	$1,348,708,508	$4,774,312,599	$41.89
Comparative totals:					
June 1, 1924	$8,750,765,284	$4,218,274,270†	$1,313,268,668	$4,815,401,455	$42.78
November 1, 1920	8,326,338,267	2,406,801,772†	987,962,989	5,628,427,732	52.36
April 1, 1917	5,312,109,272	2,942,998,527†	953,320,126	4,100,590,704	39.54
July 1, 1914	3,738,288,871	1,843,452,323†	.....	3,402,015,427	34.35
January 1, 1879	1,007,084,483	212,420,402†	.....	816,266,721	16.92

* These amounts are not included in the total since the money held in trust against gold and silver certificates and Treasury notes of 1890 is included under gold coin and bullion and standard silver dollars, respectively.

† The amount of money held in trust against gold and silver certificates and Treasury notes of 1890 should be deducted from this total before combining it with total money outside of the Treasury to arrive at the stock of money in the United States.

3. Is there a genuine saving of interest from the use of convertible fiduciary paper?
4. "An issue of paper currency by a government is a forced loan." Explain.
5. When irredeemable paper is given legal tender power and the paper is not at a parity with the standard metallic currency, will prices be made in paper or in the standard metal? Why?
6. What would be the effect of an irredeemable paper standard upon: (*a*) time contracts? (*b*) business risks? (*c*) business activity?
7. Can paper money have any value if it is not redeemable, either immediately or ultimately?
8. Is there any means by which it can be inconvertible and yet be prevented from depreciating?
9. "Value is dependent upon cost of production, and the cost of producing paper money is virtually negligible; therefore the value of paper money must be virtually negligible." Criticize.
10. "Paper money is all right in theory; but it will not work in practice." Discuss.
11. "The lesson of America's fight against paper currency should never be lost to the instructors of youth or the statesmen of this country. The only way to make inflationism truly dangerous is to be afraid of it. Once the calm, unfaltering eye of courageous reason is fixed on the savage thing that would rend the nation, it shrinks back o'ermastered to its lair." This was written in 1892. Do you agree?
12. As a practical matter is it possible to avoid the use of irredeemable currency in time of war?
13. Of the various methods employed for maintaining the value of paper money without specie redemption, which do you regard as most efficient?
14. Of the various methods of maintaining the convertibility of paper money, which do you think preferable?
15. Which of these methods of regulating paper currency are now used in the United States?
16. Upon what does the value of the silver certificate depend: (*a*) immediately? (*b*) ultimately?
17. Upon what does the value of the gold certificate depend?
18. What percentage of trust or credit is there in the United States notes?
19. How is it possible to redeem $346,681,016 of greenbacks when the fund available for the purpose is only $150,000,000?
20. What other forms of our currency, besides the United States notes, are based in part on faith?
21. Can you lay down any general rule as to the proportion the standard money should bear to the entire monetary stock of a country?

REFERENCES FOR FURTHER READING

De Bordes, J. van Walré: *The Austrian Crown.*

Foreign Currency and Exchange Investigation, Serial 9. Commission of Gold and Silver Inquiry, United States Senate, 1925.

Holdsworth, John Thom: *Money and Banking,* chap. iv.

Katzenellenbaum, S. S.: *Russian Currency and Banking,* 1914–24.

Mitchell, W. C.: *History of the Greenbacks.*

Moulton, Harold G.: *Principles of Money and Banking,* chap. v.

Noyes, Alexander D.: *Forty Years of American Finance.*

Phillips, Chester A.: *Readings in Money and Banking,* chap. v.

Seligman, Edwin R. A.: *Currency Inflation and Public Debts,* 1921.

White, Horace: *Money and Banking,* chaps. i–iv.

CHAPTER VII

THE NATURE AND FUNCTIONS OF CREDIT

With this chapter we pass from a study of the nature and functions of money to a consideration of the part that credit plays in the general economic organization. The great importance of the institution which we loosely call "credit" finds emphasis in such common expressions as: "modern industrial society is a credit society"; "credit is the heart and core of the industrial system"; and "credit is the life-blood of commerce and industry." What is the nature of this striking phenomenon? In what does its great service consist; and why, precisely, does it occupy so prominent a position in the economic system of today? It is the purpose of the present chapter to consider the nature of credit operations, to study the numerous types or classes of credit that exist today, and to indicate in a general way the significance of the institution of credit from the point of view of economic organization. It will be the task of the remainder of the volume to disclose in greater detail the economic functions of credit and to indicate the services that are rendered by the numerous types of financial instruments and institutions which have been developed in order to facilitate credit operations.

I. THE NATURE OF CREDIT

In simple business parlance, credit involves merely getting something now and paying for it later. It is synonymous with borrowing, the essential element in credit operations always being the postponement of payment for something that has been received. It is important to bear in mind that the thing loaned (on credit) may be either commodities or funds. Goods sold on time involve credit; indeed, we usually say that such goods are sold "on credit." Such goods may be paid for by a return of

goods in kind; though under modern conditions the obligation is usually settled by money payments. Money loaned by a bank or other financial institution, or by one individual to another, similarly involves a future payment, the credit consisting in allowing the individual to have the use of funds which he is to return at a later time.

Practically all credit operations are expressed in terms of the pecuniary unit. It may also be observed that it is in connection with credit, or borrowing operations, that the standard of deferred payments, discussed in chapter ii, finds its function in industrial society.

While credit is thus closely associated with the monetary system, it should not be confused with money, and the reader should be especially careful to distinguish between credit and credit instruments, which will be discussed in chapter viii. Credit is a lending operation involving, as already seen, a postponed payment; credit instruments, on the other hand, are the written evidences of antecedent credit operations, that is, of the agreement to pay at a future date. It is credit instruments, not credit, as will be seen in the following chapter, that serve as important media of exchange.

II. THE VARIOUS KINDS OF CREDIT

From the point of view of the institutions or individuals utilizing credit, the various types or kinds of credit operations that exist in the modern world have been classified as follows: public credit; capital credit; mercantile credit; individual or personal credit; and banking credit.

By *public credit* is meant chiefly the borrowing operations of governments, whether national, state, or local, through the issue of securities. The government typically promises to pay interest semiannually and to meet the principal at some stated future date. The funds borrowed are commonly devoted to public enterprises which involve large initial outlays and the benefits of which are to be spread over a period of years. National governments of course often borrow for war purposes.

By *capital credit,* or *industrial credit,* to employ another term, is meant the credit used by manufacturing and producing corporations in procuring the necessary permanent capital required for their operations. The corporation agrees to return to the purchaser of its bonds at some future date the equivalent of the funds borrowed, with interest. The purchaser of stocks also in a sense loans funds to the corporation with the understanding that he is to receive dividends in the future (if earned) and ultimately, if the business is liquidated, his share of the capital. It is the usual practice to exclude from capital credit the investments that are made by individuals in a business largely their own, such as a partnership.

Mercantile credit is the term applied to the borrowing operations of jobbers, wholesalers, commission merchants, and retailers in connection with the movement of goods from first producer to ultimate consumer. Another term sometimes used synonymously with mercantile credit is commercial credit. The distinction between commercial and other forms of credit is made clear in the section which follows.

Individual or personal credit obviously takes its name from the fact that it is connected with individuals rather than with public or private corporations. Individuals borrow money from acquaintances and from financial institutions for a wide variety of purposes; and, more important, they purchase consumptive goods on time from retail stores. In cities the goods thus borrowed are usually paid for at the end of each month, except in cases where they are sold on the instalment plan. But in the rural communities the settlements are made at much longer intervals, usually at crop-selling times, when the farmer's ship comes home.[1]

Banking credit relates to the process by means of which banking institutions are enabled to attract the funds of depositors and to make loans and create obligations payable on de-

[1] This practice is becoming less common, however, as farming becomes better organized. (See chap. xxvi.)

mand, that are not backed by a dollar-for-dollar cash reserve. This will be discussed fully in subsequent chapters.

III. INVESTMENT, COMMERCIAL, AND CONSUMPTIVE CREDIT

Viewing credit apart from the borrowing operations of particular institutions, such as governments, corporations, individuals, etc., three distinct types of credit operations may be distinguished, namely, investment, commercial, and consumptive credit. This classification regards credit from the point of view of the uses to which the funds borrowed are devoted, and thus is concerned with the means by which the obligations created are to be met at maturity.

Investment credit is that which is used in connection with the development of business enterprises, such as railroads, factories, workshops, stores, farms, mines, etc. The funds borrowed are used mainly for the creation of "fixed" or durable forms of capital goods; hence the term "fixed capital." In consequence of the productivity of capital goods, the borrower plans to pay the principal of the loan out of the accumulated earnings of the business over a period of years. Under the circumstances, the credit instruments employed usually call for payments a good many years later.[2]

Commercial credit is that which is used in financing the production, manufacture, and marketing of goods, in operating an establishment as a going concern. In contrast with the case of investment credit, the borrower is here usually in a position to repay his loan in a very short period of time. A concrete case will serve to illustrate the difference. Mr. X, a wholesaler, borrows, let us say, $10,000 from the bank and purchases a stock of goods with the money. In the course of two months he sells these goods for $12,000, or at a gross profit of 20 per cent, the goods purchased being the direct means of liquidating the loan. Similarly, the manufacturer, Mr. Y, borrows $20,000 with which

[2] See pp. 107–18

to operate his plant and equipment. In the course of three months, say, he has produced and sold $25,000 worth of goods, thus being enabled to repay his loan directly from the uses to which the borrowed funds were put.

The borrower for investment purposes, on the other hand, invests $10,000 in a factory. He does not contemplate selling the factory within a few weeks or months; on the contrary, he expects to use it for many years as the basis for his manufacturing enterprise. Ten years or more must usually elapse before the accumulated profits will permit the repayment of the principal of the loan. Investment credit furnishes capital for the development and maintenance of industries. Commercial credit provides funds for running or operating business establishments engaged in the producing, manufacturing, and marketing of goods. It is by means of the former that the business manager assembles land, labor, and materials, and constructs permanent and durable capital goods; it is by means of the latter that the business manager assembles labor, supplies, and materials, and produces and markets the consumptive goods required by society.

Consumptive credit refers to the granting of loans or the selling of goods on time to individuals who use the money or the goods received in satisfying consumptive wants. If the obligations thus created are met at maturity, it will not be because the funds or property borrowed were devoted to productive uses; it will be because the borrower has other sources of income. Such credit, therefore, usually involves somewhat greater risk of non-payment at maturity, particularly of prompt payment, than does either investment or commercial credit.[3]

IV. THE BASIS OF CREDIT

There has been a great deal of discussion, participated in by both economists and practical credit men, concerning the essential basis of a credit or borrowing operation. Some writers

[3] For a consideration of consumptive credit see chap. xxviii.

UNIVERSITY

on the subject have stoutly insisted that confidence is the basis of all grants of credits; that if one did not have confidence that the borrower would repay a loan he would never think of making the loan, save on grounds of friendship or philanthropy. Others have held that property, rather than confidence, is the basis of all genuine credit transactions. And still others insist that character is the essential factor; while some recent writers have indulged a propensity for alliteration by stating that the bases of credit are character, capital, and capacity; or the man and the means; or reliability and resources.

Without attempting to enter into a discussion of the reasons for these different statements of the basis of credit, a tabular exhibit of matters commonly investigated by competent credit men will indicate that while confidence must exist before a loan will be granted, such confidence has its basis in a knowledge both of the borrower's financial standing and ability and of his personal integrity. The things that are usually investigated may be grouped in two general classes as follows:

PERTAINING TO THE MAN

a) Record for honest dealing
b) Personal attributes
  1. Gambling and drinking tendencies
  2. Political and other "outside" activities
  3. Style of living, including wife's ambitions
c) Ability
  1. Common sense and shrewdness
  2. Education and technical training
  3. Age and general experience
  4. Success already attained

PERTAINING TO THE BUSINESS

a) Ratio of quick assets to current liabilities
b) Amount of capital invested and property owned
c) Earnings of business
d) Character and rate of turnover of stock
e) Location of business
f) Character of the business organization
g) Insurance carried
h) Nature and intensity of the competition

This list of factors is by no means inclusive; it is designed merely to be suggestive of the character of the investigation that must be made if credit is to be conservatively extended. It will

be noted, also, that the points raised in the parallel columns are not entirely unrelated. A man of excellent business ability, for instance, would be practically certain to have a proper ratio of quick assets to current liabilities, substantial earnings, etc.; and, on the other hand, if it were found that a business was poorly equipped and managed, there would be a definite reflection upon the manager's business capacity. Investigation, both of the man and of the business, usually serves, however, to furnish a more adequate basis for a sound judgment than investigation of either one alone.

One may conclude from this brief analysis that before deciding to extend credit one should have confidence, first, in the ability of the borrower to pay as promised, and, second, in his willingness and intention to pay. One is a matter of property and business ability; the other a question of honesty and business integrity. The basis of credit may be diagrammatically presented as follows:

Credit_____ Confidence_____
1. Character of man (Intention to pay)
2. Character of business[4] (Ability to pay)

V. THE SIGNIFICANCE OF CREDIT

While the economic significance of the credit system cannot be adequately discussed in the present chapter, a few of the ways in which credit is of assistance in the conduct of moden affairs and some of its broader social aspects may, however, be suggested.

Credit enables governments to obtain possession of funds with which to meet pressing emergencies, when no other means are available. It also enables individuals to surmount temporary difficulties or embarrassments. For example, it makes possible the purchase of goods for consumptive requirements pending the receipt of income; it permits the purchase of a home before

[4] Collateral security is also often required. See pp. 368–72.

the entire purchase money is in hand; and it makes possible the acquisition of an education on borrowed funds.

Credit makes it possible for honest and capable men without capital to secure the funds required for the conduct of modern industry. Similarly, it enables people with funds in excess of their immediate needs to lend the surplus to capable men of affairs who utilize them in productive activities. This process of lending funds tends to shift "capital" from the hands of those who have not the desire or the ability to make use of the funds to those who are willing and able to assume the risks of capitalistic enterpise. The result is a more effective utilization of the national resources.

The ability to borrow makes it possible for the business manager to adjust the volume of his capital to the varying requirements of business. When the demand for his products is very large at certain seasons and in certain years of extraordinary business activity, he may enlarge the volume of output by borrowing additional working capital and in dull seasons and years he may reduce the volume of capital employed. This expansion and contraction of loans, as we shall later see, finds reflection in the condition of the commercial banking institutions which constitute the foundations on which the credit structure is reared.[5]

With reference to the broader aspects and relations of the credit system, it may be pointed out that its development has depended upon the growth of three things: first, a sense of business morality, or what may amount to the same thing, a recognition of the fact that honesty is the best policy; second, a relatively stable monetary standard for deferred payments; and third, a legal system designed to safeguard the rights of individuals and to enforce a prompt fulfilment of contracts. The evolution of these three supports of the credit system has been one of the most significant features of the transformation from medieval to modern industrial society. All of these develop-

[5] See chap. xxii.

ments have been very closely interrelated; moreover, each has contributed to, and each has been accelerated by, the growth of the credit system.

The institution of credit has made possible the growth of large-scale business enterprise and, in turn, the specialized industrial society of the present time. For the moment industry passed beyond the handicraft stage, each enterprise usually required a volume of capital greater than could be furnished by the proprietors. Accordingly borrowing became an indispensable handmaiden of business. The growth of the capitalistic (profit-making) system of industry has, moreover, been marked by an ever enlarging scale of business enterprise, instituted, under the competitive régime of the eighteenth and nineteenth centuries, in the expectation of obtaining larger profits through enlarged output, decreased costs of production, and lowered selling prices. The various stages in the transformation from the medieval non-profit-making household economy to the twentieth-century capitalistic industrial system are outlined in chapter xi. It need merely be noted here, therefore, that the steadily expanding scale of both industrial and commercial undertakings is dependent upon ever enlarging aggregations of capital, the assembling of which has been made possible only by a great extension of the credit system, whereby funds might be raised for a given enterprise from a veritable multitude of individual investors. Small accumulations of capital which could not be effectively utilized by their owners are thus joined with other accumulations and placed under the control and management of individuals who are able to make the most effective use of capital resources.

Since nearly every business enterprise is nowadays in greater or lesser degree dependent on the use of borrowed funds, it is not difficult to understand why writers should stress the importance of credit in the extravagant terms noted in the introductory paragraph of this chapter. Credit is in truth a pervasive, fundamental institution—one that is indispensable to the conduct of a capitalistic industrial system.

QUESTIONS FOR DISCUSSION

1. Give a definition of credit.
2. What is the difference between credit and credit instruments?
3. Do you know of any businesses that do not borrow at all?
4. Give concrete illustrations of borrowing operations that take the form of the borrowing of actual goods. Are the operations settled by a return of goods in kind?
5. Give concrete illustrations of borrowing operations that take the form of the borrowing of money or "funds."
6. With what function of money is credit most closely associated?
7. What are the bases for the two different classifications of credit given in the chapter?
8. Which classification do you regard as more significant? Why?
9. What is the essential distinction between commercial and investment credit, that of the length of time for which the credit is extended or the use to which the funds borrowed are devoted?
10. What is the explanation of the fact that investment credit usually runs for long periods of time and commercial credit for short periods?
11. Turn to the chart on page 165 and indicate where commercial credit might be placed.
12. Where would "capital" or "industrial" credit appear on the chart? Where would "mercantile" credit appear?
13. Would consumptive credit ordinarily be extended for a shorter or longer period than commercial credit? Why?
14. Does consumptive credit appear upon the chart on page 165?
15. What is meant by the statement that the "basis of credit is confidence"?
16. As a business proposition, would you lend a man funds on the strength of his *moral character* alone?
17. As a business proposition, would you lend funds to a man on the strength of his *ability to pay* alone?
18. Which do you regard as more important in credit, the character of the man or the character of the property security?
19. "The law's delays and the law's circumventions permit property to melt away, but the element of personal honesty and the quality of efficiency do not change with time." If you agree would you conclude that ability to pay is less important than determination to pay?
20. In the case of public credit, is there any property basis for credit?
21. Is there ever any doubt of the intention and willingness of a government to pay?
22. Why has the French government recently had to pay as much as 9 or 10 per cent on domestic loans?

23. Why have rates on commercial loans in Germany recently been as high as 20 and 30 per cent?
24. Is the basis of capital, or industrial, credit confidential in the management or in the property of the corporation?
25. When a retailer advertises: "Your credit is good; cash payments not required," on what is he basing his belief that his customers will prove good?
26. When a small-town retailer sells goods on credit, does he make any investigation of the borrower?
27. When Marshall Field and Company extend credit to a lawyer, allowing him to pay his bills monthly, what is the basis of the credit?
28. What, in general, is the basis of consumptive credit?
29. Do you think it is true that large-scale business enterprise would not be possible without the institution of credit?
30. Could we have a specialized industrial society without credit?
31. In what way would you say that the institution of credit lessens the cost of producing goods?
32. Draw up a statement showing how the institution of credit has made it easier for society to satisfy its wants.

REFERENCES FOR FURTHER READING

Credit Monthly. Published by the National Association of Credit Men.

Ettinger and Golieb: *Credits and Collections*.

Hagerty, James E.: *Mercantile Credit*, chaps. i, iii, and v.

Laughlin, J. Laurence: *Principles of Money*, pp. 71–88.

Meyer, Charles A.: *Mercantile Credits and Collections*, chaps. i and viii.

Prendergast, William A.: *Credit and Its Uses*, chaps. i and ii.

Shaw Banking Series: *Credits and Collections*, chaps. iv–viii.

CHAPTER VIII

CREDIT INSTRUMENTS

The borrowing or credit operations of modern society are evidenced by written documents, drawn up in legal form, and known as credit instruments. As has already been noted, the term "credit" is often loosely employed in such a way as to give the impression that credit is a form of currency. It is not credit, however, that is used as a form of currency; it is rather the instruments which are the written evidences of antecedent credit operations that serve as media of exchange. In the present chapter we shall consider the various types of credit instruments which are employed in modern credit operations and discuss the development of certain legal principles which have made possible the effective use of these instruments in transferring the ownership of wealth.

As is indicated in the diagrams on pages 163 and 165, the capital of modern businesses is usually divided into two classes fixed and working. The financial instruments that are used in evidencing the loans made in the raising of fixed capital are usually called "investment credit instruments"; while those evidencing borrowed working capital are known as "commercial credit instruments." We shall consider the various types of instruments that fall within each class.

I. INVESTMENT CREDIT INSTRUMENTS

The three principal types of investment credit instruments are bonds, stock certificates, or shares, and short-term notes. An explanation is perhaps necessary for designating a share of stock as a credit instrument; for from a certain point of view a shareholder is legally not a creditor of the corporation but a joint owner in the enterprise. He receives income from his

shares only in case the earnings are sufficient to permit or warrant the payment of dividends. The bondholder, on the other hand, is legally a creditor of the corporation and is entitled to interest on his investment, regardless of the volume of earnings.

Although the stockholder is legally not a lender of funds to the corporation, but a part owner in the enterprise, he is nevertheless for all practical purposes commonly an "outsider" lending his funds in anticipation of a return. The rank and file of investors in stocks are not, in fact, actively interested in the management of the concern. Indeed, it is a rare thing for any but a relatively small group of insiders to exercise their voting prerogatives. The familiar expression, "Shall I invest in stocks or bonds?" indicates clearly enough that in a majority of instances the purchaser makes no differentiation between stock and bonds, save as to relative certainty of income.

A mortgage security does not guarantee against loss.—The fact that a bond is usually secured by a mortgage on the property does not insure that the bondholder cannot lose on his investment. In the event that earnings are not sufficient to pay interest on bonds, the bondholder may foreclose under the terms of the mortgage and take possession of the property; but an enterprise whose earnings are insufficient to permit the payment of interest on its bonds could not ordinarily be sold at a price which would equal the amount of the bondholder's investment—whatever may have been the evaluation originally placed upon the property. Nor is there any assurance that the bondholders can conduct such an enterprise at a profit; indeed, there is a certainty that they cannot do so when the mortgage is against only a portion of the corporation's property. In the event that interest on bonds is not paid, it is therefore usually wise to effect a financial reorganization, by means of which the amount of outstanding bonds is reduced by converting some of the bonds into stock. It is thus apparent that in the last analysis the safety of both bonds and stock depends upon the earning power of the corporation. It remains true, however, that bonds are usually

the more conservative investment by virtue of their prior claim to earnings.[1]

There are various types of stocks.—Shares of stock are divided into two main classes, preferred and common. As the term itself indicates, preferred stock has a prior claim on *dividends* and usually, in the event of liquidation, on the assets of the business. Because of the existence of common stock as a participant in the earnings of the corporation, it is obviously necessary to limit the extent to which preferred shares may receive dividends. Seven per cent is the usual limit.

Preferred stock may be either cumulative or non-cumulative, participating or non-participating. With cumulative stock the dividends which cannot be paid in any year, because of low earnings, accumulate in subsequent years as an obligation prior to that on common stock. With participating preferred stock the owner is entitled to share in the earnings above the 7 per cent limit; sometimes it is an equal participation in all earnings above 7 per cent on the common stock, and sometimes it is above 10 or above 15 per cent, depending upon the specific terms governing the issue. The great number and variety of corporations that exist have given rise to other variations on these practices, a detailed study of which is quite unnecessary for the present purpose.

Some modern preferred stocks are almost equal to bonds.—In recent years preferred stock has developed some additional features which now place it more nearly on an equality with bonds in the matter of certainty of income. Provisions such as the following are common to what is called "modern preferred stock":

1. No bonded debt exists nor can any be created without the consent of 75 per cent of the preferred stockholders. No stock which has priority over, or which is on a parity with, this issue exists, and none can be created without the same consent.

2. A cumulative sinking fund of 5 per cent per annum on the greatest

[1] The fact that bonds have a maturity date is also often of practical importance.

amount of preferred stock at any time outstanding is created for retiring the issue at not more than 110. This increases the equity in the property annually and assists in maintaining the market price.

3. Net total assets must be maintained at 250 per cent and net quick assets at 150 per cent of the preferred stock outstanding.

4. No dividends can be paid on the common stock until a reserve equal to two years' dividend and sinking fund requirements on the preferred stock has been set up out of earnings, and none can be paid which will impair this reserve.

With these provisions in force the preferred-stock owner is in a position, from the standpoint of security, almost equal to that of the bondholder. It remains true, however, that in case dividends are not paid, the individual shareholder has no power to take possession of the management of the corporation, as has a bondholder under the terms of the usual mortgage.

The common stock of the corporation merely represents claims to such earnings as may be available after the payment of dividends on preferred stock. Dividends on common stock will accordingly vary widely in amount, depending on the volume of the earnings. Since common stock is traditionally speculative and uncertain as to dividends, the majority of corporations do not hesitate to "pass" common-stock dividends as a matter of financial conservatism, even though the earnings might be frequently sufficient to pay a moderate-sized return.

Stock is now being issued without any par value.—Stock, both preferred and common, has usually been issued with a *par value,* most commonly of $100, although often of $50, $25, $10, $5, and $1; it has even been as low as 5 cents in the case of highly speculative issues. During recent years, however, many corporations have issued stock without any par value. When stock is issued without par value, a certain total number of shares is offered for sale and each will bring in the market a price that is determined by the estimated earning power of the corporation. Dividends on such stock are paid, not as so many per cent on $100 par value, but as so many dollars per share. Stock without any par value is of advantage in that it is not

so likely to mislead the innocent investor, who somehow will persist in believing that a stock whose par value is $100 will ultimately be worth $100, even though its temporary market price may be below that figure; hence he may pay for it more than its real worth. From the viewpoint of the corporation the issue of stock without par value is also a means whereby opposition to overcapitalization may in a measure be circumvented.

Stockholders' "rights" are an interesting but little-known form of credit instrument.—Stockholders' "rights" have arisen out of the exigencies of corporate financing. For instance, when the existing stock of a corporation is selling at, say, 105, additional capital can easily be raised by offering for sale new shares at par, or slightly above. But if additional shares are to be offered for sale at a bargain, it is only equitable that the existing stockholders should be given the first chance to subscribe for the new issue, because the increased capitalization may well affect the value of outstanding shares. Accordingly, it is the usual practice to allow existing shareholders to subscribe for the new issue in proportion to the amount of their holdings; indeed, in many jurisdictions the stockholders have a legal right to subscribe for new stock at par.

Such stockholders' privileges are known as "rights," and they are issued to shareholders in the form of transferable instruments. Upon the receipt of one of these instruments, the shareholder may either avail himself of the opportunity to purchase stock at par, or whatever the figure mentioned, or he may sell his right to another. These rights are in fact bought and sold on the stock exchanges in the same manner as bonds and shares. The market value of a shareholder's right is roughly equal to the estimated difference between the issue price of the new stock of the corporation and its prospective market price.

There are numerous types of bonds.—The terminology employed in describing the many different types of bonds that are in use nowadays is quite baffling to the layman. For in-

stance, a certain bond is described as follows: a 5 per cent railroad collateral trust, refunding, registered, coupon, gold bond. The whole matter may be greatly simplified by classifying bonds from certain points of view as follows: (1) the nature of the issuing corporation; (2) the purpose of the issue; (3) the conditions governing the payment of interest or principal; and (4) the character of the security.

The most important subclasses[2] under each of these headings are as follows:

1. The nature of the issuing corporation

a) Government bonds—national, state, territorial, county, city, township, school district, etc.

b) Corporation bonds—transportation, public utility, industrial, reclamation, real estate, timber, etc.

2. The purpose of the issue

a) Construction bonds

b) Improvement bonds

c) Refunding bonds

d) Equipment bonds

3. The conditions governing the payment of interest or principal. (Classification here is dependent upon the legal provisions governing payment of principal and interest.)

a) Participating bonds

b) Profit-sharing bonds

c) Registered coupon bonds

d) Gold bonds

e) Premium bonds

f) Serial bonds

g) Callable bonds

h) Convertible bonds

[2] Only the main subdivisions in each case are given. For a full classification the reader is referred to Lawrence Chamberlain, *The Principles of Bond Investment* (Henry Holt & Co.), chaps. viii to xi, inclusive. The kind of individual securities that might be listed under the various subclasses are legion.

4. The character of the security
   a) First mortgage
   b) Second mortgage
   c) Collateral trust
   d) Debenture

In the case of a first-mortgage bond the bondholders have a prior claim against income, and against property in case interest on the bonds is not paid. The mortgage pledges the property owned by the corporation as a security for the payment of interest and principal. Since it is obviously impossible to give each bondholder a share of the mortgage, the mortgage is placed in trust, and in the event of failure to pay interest the bondholders as a group may foreclose under the terms of the agreement and take possession of the property.

As the name indicates, a second mortgage constitutes a secondary claim against income and property. Anything left after payments have been made to the owners of the first mortgage may be devoted to meeting the claims of the second-mortgage holders.

A collateral trust bond is one which is secured, not by real estate or other physical property owned by the corporation, but by stock or bonds of other companies owned by the issuing corporation. This type of security is mainly found in connection with railroad companies. The term "trust" indicates that these collateral securities are placed in trust with a trust company or other trustee. In the event that interest is not paid on such bonds, the holder may seize the collateral which is held in trust.

A debenture bond proper has no mortgage security but merely a claim against the income of the corporation—a claim, moreover, that is secondary to that of any outstanding mortgage bonds. Its claim against net earnings, however, is prior to that of preferred stock.

The short-term note is frequently employed in raising fixed capital.—The designation "short term" is employed because the

*No.*_____ United States of America. State of Ohio. *$1,000.*

The Columbus Consolidated Street Railroad Company

First Mortgage Twenty Year Five Per Cent. Gold Bond

For Value Received, The Columbus Consolidated Street Railroad Company, a corporation organized and existing under the Laws of the State of Ohio and operating street railroads in the City of Columbus, promises to pay to the Central Trust Company of New York, Trustee, or to the bearer or registered owner hereof, One Thousand Dollars, in gold coin of the United States of America, of the present standard, on the first day of July, 1909, and to pay interest thereon at the rate of five per cent per annum from the first day of July, 1889, on the first days of January and July in each year, on the presentation and surrender of the coupons hereto annexed as they severally become due, until said principal sum shall be paid, both principal and interest of this bond being payable at the agency of said Railroad Company in the City of New York. This bond is subject to redemption on or after July 1, 1894, at 110 per cent of the par value thereof, with accrued interest, out of a sinking fund of $22,500 a year, beginning with that date, as provided in the mortgage herein described. This bond is one of a series of Eight Hundred bonds, of like tenor, date, and amount, numbered consecutively from One to Eight Hundred, both inclusive, and amounting in the aggregate to Eight Hundred Thousand Dollars, which are all equally secured by a mortgage of said Railroad Company in the nature of a conveyance in trust, dated July 1, 1889, and duly recorded, conveying all the property and franchises of said Railroad Company to said Trust Company, in trust, for the benefit of the holders of said bonds, to all the provisions of which mortgage this bond is subject. In case of default for six months after due demand in payment of any interest on any of said bonds, the principal of all thereof may be declared due, as provided in said mortgage. The principal of this bond may be registered on the books of said Railroad Company at its said agency, and registration thereof noted hereon, after which no transfer thereof shall be valid, except on said books, until after registered transfer to bearer, when the principal of the bond will again become transferable by delivery. The coupons annexed to this bond will always be transferable by delivery. This bond shall not be valid unless authenticated by the Certificate of the trustee of said mortgage.

In Witness Whereof, said Railroad Company has caused its corporate seal to be hereto affixed, and this bond to be subscribed by its President and Secretary, and the name of its Treasurer to be engraved on the several coupons hereto annexed, at the City of Columbus, in the State of Ohio, this first day of July in the year Eighteen Hundred and Eighty-nine.

.....*Secretary* .....*President*

[*Tille, on back*]

No..... The Columbus Consolidated Street Railroad Company First Mortgage $1000 Twenty Year Five per cent. Gold Bond. Due July 1, 1909. Interest payable January 1 and July 1. Principal and Interest payable at agency of the Company in the City of New York.

[*On the back*]

TRUSTEES' CERTIFICATE.—The Central Trust Company of New York, Trustee, hereby certifies that this bond is one of the series of Eight Hundred mortgage bonds described in the mortgage mentioned herein, bearing date the first day of July, 1889.

CENTRAL TRUST COMPANY OF NEW YORK, Trustee

By.....*Vice-President*

NOTICE!—No writing on this Bond, except by an officer of the Company.

DATE OF REGISTRY	IN WHOSE NAME REGISTERED	TRANSFER AGENT

[On the end, forty Coupons, numbered on the back, and dated each first day of January and July, from 1890 to 1909, the face of the first one reading:]

$25. Coupon No. 1.—On the first day of January, 1890, The Columbus Consolidated Street Railroad Company will pay the bearer, at its agency in the City of New York, Twenty-five Dollars, being the semi-annual interest then due on its First Mortgage Bond No.....

E. K. STENORF, *Treasurer*

NUMBER

SEVEN PER CENT CUMULATIVE PREFERRED STOCK

SHARES

INCORPORATED UNDER THE LAWS OF THE STATE OF NEW JERSEY

United States Steel Corporation

REGISTERED: NEW YORK SECURITY AND TRUST COMPANY, REGISTRAR,

by

ASS'T SECRETARY.

This is to Certify that _____

is the owner of _____ *fully paid and non-assessable shares of the par value of one hundred dollars each, in the* **PREFERRED CAPITAL STOCK** *of United States Steel Corporation, transferable only in person or by attorney upon the books of said Corporation, upon surrender of this certificate. The holders of the preferred stock shall be entitled to receive, when and as declared, from the surplus or net profits of the Corporation, yearly dividends at the rate of seven per centum per annum, and no more, payable quarterly on dates to be fixed by the by-laws. The dividends on the preferred stock shall be cumulative, and shall be payable before any dividend on the common stock shall be paid or set apart: so that, if in any year dividends amounting to seven per cent shall not have been paid thereon, the deficiency shall be payable before any dividends shall be paid upon or set apart for the common stock. Whenever all cumulative dividends on the preferred stock for all previous years shall have been declared and shall have become payable, and the accrued quarterly installments for the current year shall have been declared, and the company shall have paid such cumulative dividends for previous years and such accrued quarterly installments, or shall have set aside from its surplus or net profits a sum sufficient for the payment thereof, the Board of Directors may declare dividends on the common stock, payable then or thereafter, out of any remaining surplus or net profits. In the event of any liquidation or dissolution or winding up (whether voluntary or involuntary) of the Corporation, the holders of the preferred stock shall be entitled to be paid in full both the par amount of their shares and the unpaid dividends accrued thereon, before any amount shall be paid to the holders of the common stock; and after the payment to the holders of the preferred stock of its par value, and the unpaid accrued dividends thereon, the remaining assets and funds shall be divided and paid to the holders of the common stock according to their respective shares. The preferred stock and the common stock may be increased as provided in the Certificate of Incorporation. This certificate is not valid without the signatures of the Transfer Agent and Registrar of Transfers.* **WITNESS** *the signatures of the President, or of a Vice-President, and of the Treasurer or of an Assistant Treasurer, of said Corporation.*

by

HUDSON TRUST COMPANY, TRANSFER AGENT,

ASS'T SECRETARY.

ASS'T TREASURER

VICE-PRESIDENT

SHARES $100 EACH

[Form of Assignment on the Back of the United States Steel Corporation Preferred Stock Certificate]

For value Received____hereby sell, assign, and transfer unto

_____

_____ *Shares of the Capital Stock represented by the within Certificate and do hereby irrevocably constitute and appoint*

_____ *Attorney to transfer the said stock on the Books of the within named Corporation with full power of substitution in the premises.*

*Dated*_____*19*____

_____

In Presence of

_____

NOTICE: THE SIGNATURE TO THIS ASSIGNMENT MUST CORRESPOND WITH THE NAME AS WRITTEN UPON THE FACE OF THE CERTIFICATE, IN EVERY PARTICULAR, WITHOUT ALTERATION OR ENLARGEMENT, OR ANY CHANGE WHATEVER.

notes in question usually run from one to five years rather than for long periods, as is the case with bonds. These notes are usually secured only by the income of the company. Accordingly it is customary for payments on the principal to be made serially, that is, a certain percentage of the total debt is paid back annually, thus gradually increasing the security back of the loan.

Short-term notes are usually issued to meet temporary emergencies. In periods of tight money and high interest rates, or of general uncertainty over the industrial future, it is difficult to sell long-time bonds on favorable terms; hence it has been found expedient to sell short-term notes which can be refunded into long-term bonds at a more propitious time. Short-term notes are also used—and increasingly so—to provide funds for new construction under conditions such that the debt can be paid off out of earnings within a relatively short period of time. Their claim on income is secondary to that of bonds.

The accompanying illustrations are examples of a standard bond and a share of stock.

II. COMMERCIAL CREDIT INSTRUMENTS

Commercial credit instruments—promissory notes and bills of exchange—are the written evidences of the commercial borrowing operations discussed in the preceding chapter. Because of the nature of the uses to which funds borrowed for working-capital purposes are devoted, these instruments run for short periods of time only. Especial importance is attached to them because of the prevalent use of certain forms of bills of exchange as substitutes for money, a phenomenon made possible, as we shall see, by the principle of negotiability.

Book accounts.—Many credit operations are evidenced merely by entries in the account books of business men—"accounts receivable" in the books of the seller (or lender), and "accounts payable" in the books of the buyer (or borrower). While such informal credit extension is quite as significant as

any other, it does not concern us here for the reason that it does not give rise to tangible legal instruments.

The promissory note.—A promissory note is an unconditional written promise by X, the maker, to pay at a definite future date a sum of money to Y, the payee. It may or may not designate the place at which payment is to be made. Promissory notes may be issued by banking and other institutions and governments as well as by individuals, and as a result of non-commercial as well as of commercial obligations. An illustration of a promissory note will be found on page 120.

The draft or bill of exchange.—A bill of exchange, or draft, is an unconditional written order signed by X (the drawer) ordering Y (the drawee) to pay at a definite date a definite sum of money to Z (the payee). The payee may be the same person as the drawer. Before a time draft is good, the drawee must indicate his willingness to honor it by signing his name below the word "Accepted" written across the face of the bill.

Bills of exchange may be classified from several points of view. In the first place, we have (1) foreign and (2) domestic, or inland, bills. A foreign bill is legally defined as one, the drawer and drawee of which live in different countries or different states of the United States; while a domestic bill is one, both parties to which live within the same state. This classification is of importance from the legal point of view, but from the standpoint of commercial and banking practice the distinction is without significance.

We have thus far been using the terms "bill of exchange" and "draft" indiscriminately. The two terms are, in fact, commonly used interchangeably; for instance, we speak of drafts on London or bills of exchange on London, and we say New York exchange or drafts on New York. The term "draft," however, is by many people employed when they mean a particular type of draft, such as a banker's draft or a draft drawn by one individual on another as a reminder that a debt is due and payable. In order to give precision to our terminology it

will be well for us to use the term "draft"—and this appears to be a growing custom—when speaking of domestic operations, whether or not they cross state lines; and the term "bill of exchange" when speaking of international credit instruments.

These instruments may also be classified according to whether the parties to the order are bankers. A banker's draft is an order drawn by one bank on another bank, although it is not necessary that the party to whom it is payable be a bank. A bill drawn by one individual against another would be called an individual draft.

PROMISSORY NOTE

Due _____

$ 500.00 No. 246 Chicago Illinois, March 18 1916

Sixty days after date for value received the undersigned promise to pay to the order of

THE NATIONAL CITY BANK OF CHICAGO

Five hundred and 00/100 _____ DOLLARS

at its Banking House in Chicago Illinois, with interest AFTER MATURITY at the rate of seven per cent per annum until paid and with costs of collection and a reasonable attorney fee if not paid at maturity. Presentment and demand for payment, notice of non-payment, protest and notice of protest are each and all hereby waived by the makers, endorsers and guarantors jointly and severally. Any indebtedness owing from said bank or legal holder hereof to the undersigned or to any endorser or guarantor may be appropriated and applied by said bank or legal holder on this note at any time either before or after maturity of this note and without demand upon or notice to any one.

BUSINESS ADDRESS: 26 Lafayette Ave

John Doe
Richard Roe

Form 15

Finally, bills may be classified in accordance with the nature of the operation giving rise to the draft. Hence we have bankers' or finance bills, trade or commercial bills, and accommodation bills. Bankers' bills are used merely as a means of making payments and transferring balances between banks. A trade draft, or a "trade acceptance," to use the more common term, is an order drawn by a seller of goods against the buyer of the goods and accepted by the latter. Accommodation drafts are drafts which do not arise out of any business transaction already concluded; and there may or may not be an intention to purchase goods with the funds procured; it is a "non-trade" draft. "Accommodation" is a term that has been handed down from

English commercial practice and is not frequently employed in the United States at the present time.

The accompanying forms on pages 122, 123, and 124 are specimens of the various types of drafts.

Checks, bank notes, and bank drafts are not really credit instruments.—Bills of exchange are also sometimes classified as demand and time bills: a demand bill being one payable "at sight," that is, immediately upon presentation, and a time bill one payable at some definite date in the future. It is these demand instruments, particularly bank notes, cashiers' checks, bank drafts, and personal checks drawn against bank-deposit accounts, that serve extensively as media of exchange. While these demand notes and bills have commonly been called "credit instruments," they are strictly not credit instruments at all, for they are not evidences of *postponed* payments, the essential characteristic of credit operations. A few words of explanation will serve to clarify matters.

A check is a credit instrument in the sense that it must be honored by the bank before it is the equivalent of cash, just as credit is involved in a business operation when one receives goods a second or so before he passes the money over to the seller; there is a brief interval during which the seller is waiting to be paid. But no one really regards such a business transaction as a credit operation, the essence of which is a postponed or future payment. A cashier's check, a certified check, and even an uncertified check in the vast majority of instances are in practice precisely as satisfactory means of payment as actual cash. Even though they are credit instruments in form—mere promises, direct or implied, to pay cash—this distinction has little practical significance. For the same reason the bank note, which is a promise by a bank to pay to the borrower on demand a certain specified sum of money, is not a credit instrument; it passes everywhere as an equivalent of money.

Checks, bank drafts, and bank notes are credit instruments only in the sense that greenbacks and token coins are credit

TRADE ACCEPTANCE

No. _____

PAY TO THE ORDER OF OURSELVES

(DOLLARS $ _____) THE DRAWER MAY

THE OBLIGATION OF THE ACCEPTOR HEREOF ARISES OUT OF THE PURCHASE OF GOODS FROM THE DRAWER.

ACCEPT THIS BILL PAYABLE AT ANY BANK, BANKER OR TRUST COMPANY IN THE UNITED STATES WHICH HE MAY DESIGNATE

BY _____

(SIGNATURE OF ACCEPTOR)

191 _____ LOCATION OF BANK

(CITY OF DRAWER) (DATE) ON _____ (DATE OF MATURITY) (NAME OF BANK) PAYABLE AT

ACCEPTED

DATE

TO _____ (NAME OF DRAWER) (STREET ADDRESS) (CITY OF DRAWER)

BY _____ (SIGNATURE OF DRAWER)

TRADE ACCEPTANCE

FORM APPROVED BY THE

AMERICAN TRADE ACCEPTANCE COUNCIL

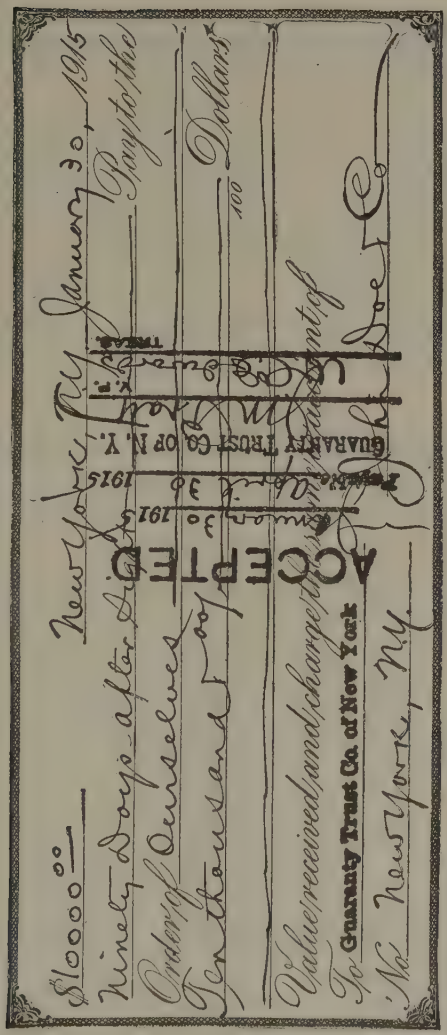
EXECUTIVE COMMITTEES OF THE

CHAMBER OF COMMERCE OF THE UNITED STATES

AMERICAN BANKERS ASSOCIATION

NATIONAL ASSOCIATION OF CREDIT MEN

BANK ACCEPTANCE



BANKER'S BILL OF EXCHANGE ON LONDON

THE National Bank of North America No.

EXCHANGE FOR £1000 Stg

Chicago, U.S.A. April 1, 1916

Sixty days after Sight of this FIRST OF EXCHANGE (Second unpaid) please pay to the order of Richard Roe

One Thousand pounds Sterling

Value received, and charge to account of

THE NATIONAL BANK OF NORTH AMERICA, CHICAGO

To The Union of London and Smiths Bank Ltd. 2 Princes St. Mansion House London E.C.

By John Doe

CASHIER'S CHECK

STATE OF ILLINOIS

THE NATIONAL CITY BANK OF CHICAGO

CHICAGO, March 21, 1916 No. 265

PAY TO THE ORDER OF Richard Roe $5000

Five Thousand and no/100 DOLLARS

To The National City Bank of Chicago

John Doe

CASHIER

PERSONAL BANK CHECK

HOME OF THE MANHATTAN STEEL SAFE DEPOSIT VAULTS

CHICAGO, ILL. April 1, 1916 No 201.

The First National Bank of Englewood 2-109

PAY TO THE ORDER OF John Doe $100 00

One hundred + no/100 DOLLARS

LADIES DEPARTMENT.

Mary Manson

currency. These *sight* instruments, like greenbacks and token coins, are not backed by a gold reserve of 100 per cent; and hence confidence in the ability of the banks and of the government to redeem them upon demand is an essential to their acceptance as media of exchange.[3] Under ordinary circumstances no one questions the convertibility of these instruments into gold on demand, and accordingly they are for all practical purposes equal to gold as a means of payment. Whenever a doubt arises as to the possibility of conversion, as it has arisen in the past, the difference between such instruments and standard money is revealed. But this does not make them credit instruments in the same sense that a promise to pay at some future date is a credit instrument.

Notes and drafts serve identical purposes.—It remains to point out the similarity of the operations that give rise to promissory notes and bills of exchange. Mr. Jones, a wholesaler, sells goods on credit to Mr. Smith, a retailer. The transaction may of course be evidenced merely by "open accounts" on the books of Jones and Smith, respectivly—"accounts receivable" from Smith in Jones's books, and "accounts payable" to Jones in Smith's books. But, passing by this informal method of evidencing the credit operation, the sale of goods by Jones to Smith may give rise either to a promissory note or to a trade draft, according to the commercial practice in vogue. In the case of a promissory note, Mr. Smith takes the initiative and writes the instrument evidencing his obligation to pay Jones. In the case of the trade draft, Jones takes the initiative, writes the order against Smith, and sends it to Smith, who honors the draft by writing "accepted" on its face. The result is the same in either case: Smith has signed a legal instrument obligating himself to pay Jones. It is the custom nowadays, as the illustration on page 122 shows, to have stated on the face of the

[3] An uncertified check and a bank draft differ slightly, however, from certified and cashiers' checks and bank notes in that there must also be confidence that the drawer has the requisite funds to his credit in the bank on which the instrument is drawn.

trade acceptance that the obligation to pay arose out of a sale of goods by Jones to Smith. While this is not the custom with the promissory note, there is no theoretical reason why a trade note carrying such a statement on its face should not be developed.

In case Jones wishes to borrow from a bank in anticipation of the payment of the obligation by Smith, he may do so by having a bank discount either Smith's note or Smith's acceptance. From the standpoint of the bank, the security is identical in both cases. With the note the bank has Smith's promise to pay at maturity and a secondary liability on the part of Jones, as indorser. With the draft the bank again has Smith's promise to pay, by virtue of his acceptance of the instrument, and it has Jones's secondary liability, as maker of the draft. Which form of instrument is employed at any time depends upon the custom of manufacturers and merchants. In Europe the draft is characteristically employed. In the United States both drafts and notes were in common use before the Civil War; but because of the risks of price changes during the period of greenback currency American commercial practice was gradually transformed to the system of selling on "open" or book account. Except in a few special lines credit instruments came to be employed only in cases where the creditor's standing was not first class, as when an account was not paid at maturity and a note was given in "settlement." Since the passage of the Federal Reserve banking law in 1913 an effort has been made to restore the extensive use of credit instruments, in the form of the trade acceptance. As yet, however, the effort has not been as successful as was hoped; and the desirability of making the change is still a debatable issue.[4]

III. THE USE OF CREDIT INSTRUMENTS IN TRANSFERRING WEALTH

A share of stock is a written evidence of ownership—that is, partial ownership—of a designated business. The possessor of

[4] See pp. 365–66.

a share is in effect a joint owner of certain definite, tangible wealth, although in the nature of the case he is debarred from taking possession of such wealth without the consent of other shareholders. The owner of a bond or promissory note or accepted draft has a partial claim against definite, tangible wealth that is owned by others. Under present conditions, where industry is primarily organized on the corporate basis, and where capital, both fixed and working, is largely borrowed, these ownership shares and creditor claims represent a very considerable proportion of the total wealth of the world.

A business, the capitalization of which runs into millions of dollars, is seldom sold outright. Its shares and bonds constantly change hands, however, and there is an ever shifting body of shareholders and creditors. Similarly, the evidences of borrowed working capital in the form of promissory notes and bills of exchange are continually being transferred through the process of purchase and sale. Indeed, a large corporation does not usually even know who its creditors are, either the owners of its bonds or the holders of its notes and acceptances; it merely knows that a certain total amount of claims against it are "floating" somewhere in the investment and commercial markets.

In chapter xi we shall see how the marketability of bonds and shares greatly facilitates the raising of fixed capital. A ready marketability is equally important with short-term promissory notes and bills of exchange. The essential point is that if one were not able to extricate himself from a financial relationship, if he could not regain command of his funds at will, he would be less willing to make loans either for fixed or working capital purposes. We shall find that, by virtue of the development of certain legal principles, these credit instruments have also come to be extensively used as a means of transferring the ownership of wealth.

Salability and transferability.—Three legal principles have been developed to facilitate the use of credit instruments in

transferring the ownership of wealth: namely, salability, transferability, and negotiability. The various forms of credit instruments—bonds, shares, notes, drafts, checks, certificates of deposit, etc.—possess these attributes in varying degrees, and it appears, consciously or unconsciously, each has been given the particular attributes required by the nature of the use to which it has been found convenient to devote it.

On the matter of salability a word of explanation will be sufficient. By means of a sale an individual may transfer to another all of his ownership rights in a piece of property. The law of sales has been made applicable to all of these credit instruments; and an owner of one of them may therefore always transfer to another at least the same amount of ownership of the instrument, and thus of the property which the instrument represents, that he himself possesses.

While salability is an obvious prerequisite to the transferability of any of these instruments, it does not fully explain the latter. For instance, a credit instrument, unlike tangible personal property, may be automatically transferred by the mere process of indorsement, that is, by writing one's name on the back of an instrument that is made payable to him or to his order; or, in the case of an instrument made payable to bearer, it may be transferable merely by delivery, that is, by passing it on to another. Similarly, an instrument that has been indorsed in blank, that is, by the owner's writing his name on the back of it without designating any specific payee, is also transferable by mere delivery. The ease with which these instruments may be transferred renders their use as a means of exchanging the ownership of wealth much more general than would otherwise be the case.

But transferability may involve more than this. For even though he himself has no title at all, a possessor of an instrument that is payable to bearer may transfer to another a valid or unimpeachable title. A bearer instrument is thus for all practical purposes equivalent to money. But this borders on the

principle of negotiability, to a consideration of which we may now turn.

The principle of negotiability.—A negotiable instrument possesses the attribute of salability, and its title is transferable from one person to another, either by indorsement or by delivery. But it has other attributes as well. As usually defined, a negotiable instrument differs from a simple contract, or "chose in action," in that a "bona fide purchaser for value," innocent of any irregularity as between the original parties to the contract, obtains a title to the instrument that is free from all personal defenses and equities of prior parties. A purchaser of a non-negotiable instrument, however, takes the instrument subject to all its original defenses and is apparently supposed to protect himself by an investigation of the origin and history of the instrument. While there are some exceptions to this principle, while transferability with a better title is not an exclusive attribute of a negotiable instrument, it nevertheless possesses this attribute in a very high degree; and it is commonly said to be its distinctive characteristic.

In order to possess the quality of negotiability, an instrument must conform to certain requirements prescribed by the custom of merchants—now codified in the law of negotiable instruments. The instrument must be drawn up in a certain prescribed form, it must be sold in a specified manner, certain precise steps must be followed in presenting it for payment, and a definite procedure must be gone through in giving notice of its dishonor in case of non-payment.[5] These requirements originally related only to commercial credit instruments in the form of promissory notes and bills of exchange, and the history of the law of negotiability is associated with commercial, rather than investment, credit instruments.

The law governing negotiable instruments had its inception in the customs of the mercantile world; they were born of the necessities and needs of merchants, as is indicated by the fact

[5] For details see pp. 132–34.

that the law relating to such instruments is usually known as "the law merchant."[6] The custom of making such notes and bills of exchange payable to order or bearer arose in England early in the seventeenth century.[7] But until 1756, when Lord Mansfield, "the father of the law merchant," expressed and molded into the form of definite rules of law the numerous customs that had grown up among merchants in connection with these instruments, the law of bills and notes was in a more or less chaotic condition. Mansfield made the law merchant an integral part of the great body of the English law, which was inherited by the American colonies, and, in due course, by the American commonwealths.

During the first century of American legal history, differing interpretations of the law merchant developed in the various states, with the result that commercial practice was seriously handicapped. About 1890, however, a movement was initiated to bring about a codification of the law merchant, with a view to securing uniformity in the various jurisdictions. A negotiable instruments bill was finally drafted in 1896 by a "committee on commercial law," and this has since become a law in nearly every state in the Union, in a few instances, however, with more or less important modifications.

The reason for developing the principle that an instrument in the hands of an innocent third party should be free from personal defenses and collateral claims existing between prior parties was to facilitate the use of such an instrument as a means of making payment. In the settlement of transactions

[6] While originating in mercantile lines, these instruments are now used quite as much by manufacturers as by merchants.

[7] Promissory notes and bills of exchange appear to have been used by various nations of antiquity. There are records of their use in Babylonia and Syria, in Athens and in Rome. It appears, indeed, that by the time of Justinian the fundamental principles of the bill of exchange and the promissory note were pretty well developed. After the Dark Ages we find them arising again with the trading operations of Italian cities; and by the middle of the thirteenth century the bill of exchange had apparently become a common document.

between merchants at the great fairs and market places in early England there was plenty of occasion for irregularities. For instance, the maker of an instrument might have entered into the transaction without consideration,[8] and if a third party were asked to accept an instrument subject to such defenses as an original maker might set up, he would usually refuse because of the risks involved. Accordingly, it was necessary to devise a means whereby the purchaser of such an instrument would be protected from irregularities of which he could have no cognizance without a careful investigation of the origin and history of the instrument in question.

To be negotiable, an instrument must meet certain essential conditions.—In order to guard against misinterpretation, fraud, etc., the law prescribes that an instrument to be negotiable must be drawn up in a certain definite way. The conditions that must be met to make an instrument negotiable are as follows:

1. *It must be in writing.*—No oral contract could be negotiable. A written contract may be either in writing or in printing, and the writing may be executed with any substance, as ink or pencil.

2. *It must be properly signed.*—It is usual that the signature be made by writing in full the name of the signer; but a mark or any other character intended to be the signature will suffice. The signature is usually placed at the close of the instrument, although if it is clear that it is meant for a signature it may be placed on any part of the instrument.

3. *It must be negotiable in form, that is, payable to order or bearer.*—It must be clearly shown to be the intent of the party making the instrument to execute a negotiable paper; and to make this intent clear there must be some expressed words showing such a purpose.

4. *It must be payable in money only.*—The reason for this requirement is to insure the amounts being certain and definite. By the term "money" is meant the legal tender of the country.

[8] See pp. 134-36.

5. *The amount must be certain.*—The sum payable is considered fixed and certain if it is a definitely stated amount with interest, or in stated instalments, or with exchange (the bank's charges for collection), or with the cost of collection in case payment is not made at maturity.

6. *It must be payable to a designated payee.*—It is not necessary to name the specific party, but it must be payable to a person or persons who can be definitely ascertained at the time of the payment.

7. *It must be payable absolutely.*—If the instrument is so drawn that any condition might arise that would render it of no effect, it is not a negotiable paper. Consequently a promise to pay a certain sum out of a designated fund is not negotiable; this is the case even though the fund exists at the time and although the condition that would nullify the contract had not in fact arisen.

8. *It must be payable at a time that is certain.*—The date of payment must be definitely stated; though it may be payable on or *before* a certain definite date, or at a certain time *after* the happening of some future event. The contingent event must be certain to occur, however, or the promise will not be absolute.

Negotiability depends upon certain legal procedure:[9]

1. *Indorsement.*—The indorsement must be on the instrument itself or on a paper attached to it. The indorsement must relate to the entire instrument; a part cannot be transferred by indorsement, or a part to one party and the remainder to another.

The obligation of an indorser to a transferee, like that of a drawer of a bill, is that the indorser will pay the instrument, provided the maker does not, and also provided it is duly presented for payment and upon refusal is duly protested and notice of protest given the indorser. In domestic bills and notes the protest may be omitted and instead notice of non-payment may be given the indorser. It should be noted that the contract of

[9] For this material I am indebted to Gano, *Commercial Law.*

the maker of a note or the acceptor of a bill is absolute; each is liable in any event. But the contract of the indorser and of the drawer of a bill is conditional upon the failure of the maker or acceptor to pay upon proper protest and notice to him.

If the indorser of a note wishes to avoid any personal liability, he may indorse "without recourse" and sign his name. He thus expressly stipulates that he will not be liable if the maker does not pay. There is an implied warrant, however, that the signatures of the maker and all prior indorsers are genuine, that is, that they are not forgeries. The intent and purpose of such indorsement is merely to pass title to the instrument.

2. *Presentment and demand.*—To fix the liability of the drawer or indorser it is necessary to present the instrument to the drawee and demand payment. Presentment consists in exhibiting the instrument to the payer or in handing it to him, while demand is a request to either accept or pay it as the case may be. If the paper is payable at a bank, the mere fact that at the time of maturity the paper is at the bank at which it is payable is sufficient presentment and demand, provided the drawer has knowledge of the fact. Presentment must be made on the day on which the instrument falls due, unless some "inevitable accident" or other legal obstacle prevents such presentment. The fact that both the holder and indorser know that the note will not be paid when due and that the maker is dead and the estate insolvent does not relieve the holder from his obligation to make presentment and give notice of dishonor.

3. *Notice of dishonor.*—After the payment has been refused and the instrument dishonored, notice of such dishonor must be given to the drawer of a bill of exchange and to each indorser. Any drawer or indorser to whom such notice is not given is discharged. If the parties reside in the same place, the notice must be given the following day. If they reside in different places and notice is sent by mail, it must be deposited in the post-office so as to go the day following the dishonor; if given otherwise than through the mail, it must be done in time

to be received as soon as the mailed notice would have been. The notice may be given by the holder or his agent or by any party who may have to pay the debt and who is entitled to be reimbursed.

When there are several indorsers, the last indorser can look to the previous one, or, in fact, to anyone who has indorsed before him, as well as to the maker or acceptor. The notice of dishonor may be either oral or written, and can be either delivered personally or sent through the mail.

4. *Waiver.*—Notice may be waived, in which case the obligations will be assumed without the formal notification. The indorser may also add "protest waived," the effect being to waive presentment and notice of dishonor as well.

5. *Protest.*—Protest is a formal declaration in writing and under seal, of an officer called a notary public, certifying to the demand and dishonor. Protest of foreign bills of exchange is necessary, but it is not required in the case of notes, checks, and inland bills, although it is often employed in giving notice of their dishonor. The notary makes the presentment and demand, and upon refusal to honor it issues a certificate, stating that presentment and demand have been made and judgment refused, and further that notice has been sent to the maker and all indorsers of the note.

There are certain absolute defenses.—It has been stated above that a negotiable instrument in the hands of an innocent purchaser for value is not subject to the defenses that might be interposed to it between original parties—the purpose being to make such instruments serviceable as media of exchange. But while the law was desirous of doing everything possible to facilitate commercial operations, it was necessary to protect the original maker of the instrument against abuse. Certain absolute defenses have, therefore, been recognized by the courts. The following are some of the absolute defenses:

1. *Non-delivery.*—If either the maker or acceptor of an instrument, or the agent of either, passes the instrument to a

third party; or if it gets into the hands of a bona fide holder through negligence, the instrument is considered as having been delivered. But if the holder has been deprived of its possession by fraud or theft, he cannot be compelled to pay the amount named to anyone. In the view of the law such an instrument was not delivered and no contract exists.

2. *Fraud in making the instrument.*—If in the making of the instrument there was fraud of a nature that would vitiate an ordinary contract, the law holds that no contract exists; and the maker or acceptor of such an instrument cannot, therefore, be held responsible for payment to innocent third parties.

3. *Alteration or forgery.*—Where there has been a material alteration, or forgery, the law holds that the minds of the parties have not met and there is thus no contract. An alteration of the terms of a negotiable instrument, either by a party to the instrument or one in lawful possession of it, destroys its validity. It is obvious that if the law made an individual responsible for the payment of an instrument on which his name had been forged, it would not only work a gross injustice upon the individual in question but would be a distinct encouragement to the practice of forgery.

4. *Want of capacity to contract.*—The contract represented by the instrument is not genuine if the parties to the contract do not have the capacity to contract, as in the case of an infant or a person who has been adjudged insane.

These absolute defenses which may be set up by the original maker of an instrument do not apply, however, to individuals who have indorsed the instrument as it passed through their hands. Every person who negotiates such an instrument warrants that it is genuine, that he has good title to it, and that all prior parties have capacity to contract. The indorser, therefore, unless the indorsement is without recourse, assumes liability for the payment of the instrument.

The law of negotiable instruments is extraordinarily complex and the exceptions to and qualifications of the general prin-

ciples that have been categorically stated above are legion. In this very brief discussion of the transferability and negotiability of credit instruments, the purpose has been merely to indicate the evident purpose and intent of the law to render these instruments more serviceable in meeting the needs of commerce and industry.

It remains to note the extent to which the various forms of instruments possess the different attributes under consideration. All of them are salable; some of them are transferable without change of ownership rights; others show improved title in the hands of an innocent third party; some of them are transferable by indorsement only; others by delivery merely. In each case it appears that the law has been seeking, consciously or unconsciously, to facilitate the use of the instrument in the particular ways desired.

The foregoing discussion of the law of negotiable instruments relates to commercial credit instruments in the form of promissory notes and bills of exchange. Very little has been written, indeed, upon the transferability and negotiability of investment credit instruments, owing to the fact that the law and procedure governing negotiable instruments arose in the mercanitle or commercial credit field. But with the development of corporate industry, we find, in fact, that in greater or lesser degree these principles have been applied as well to investment credit instruments.

Some commercial credit instruments are used extensively as substitutes for money, while others are not.—As we have seen above, the origin and development of the principle of negotiability and transfer by indorsement is ascribed to the desire to facilitate the use of notes and bills of exchange as media of exchange. In early times it is probable, moreover, that promissory notes and bills of exchange frequently changed hands numerous times, thus performing an important exchange function. Nowadays, however, it is only checks, bank notes, and

bank drafts that serve extensively as media of exchange.[10] These instruments, in fact, serve as a means of effecting, in the United States, over 95 per cent of our wholesale exchanges and in the neighborhood of 80 per cent of all exchanges, including retail operations.

The reason that a bill of exchange drawn by A against B is seldom used by A as a means of paying a debt owed by A to C is, first, that two such obligations may not mature on identical dates, and, second, that they are not usually of equal amounts. If B's debt to A for $1,000 is due March 1, and A's debt to C for $1,200 is due March 5, B's accepted draft is obviously not a convenient instrument with which to pay C. The method nearly always employed nowadays is for A to deposit funds received from B in a bank and draw his check against his account in favor of C or ask the banker for a cashier's check or a draft on another bank made payable to C.

The transferable qualities of a bond vary. One drawn to order is on a par with the ordinary bill of exchange or promissory note drawn to order; it is transferable to the same extent and in the same manner, and the liability of the parties to it is fixed in the same way. A bond payable to bearer, that is, a non-registered bond, passes title by delivery just as does a bearer commercial instrument. A registered bond, however, is not transferable by indorsement, nor is it negotiable. Bond coupons are usually bearer-instruments, and are transferable by delivery, with all the legal consequences that follow from the transfer of any negotiable bearer-instrument.

Shares of stock are ordinarily transferable either by an order indorsement or by an indorsement in blank. The indorsement operates as a power of attorney to remove the name of the former owner and place the name of the new owner on the certificate. A mere possessor of a share of stock (or of a registered bond) has, however, no title at all, even though it is indorsed in

[10] It is to be noted that this list includes only *demand* instruments. It will be recalled that they are not, strictly, credit instruments.

blank; and he cannot pass title to a bona fide transferee. A certificate of stock is therefore not negotiable in the ordinary sense; there are no formal requisites; and there are no questions concerning the fixing of liabilities of the parties to the instrument, etc. Shares of stock are, however, readily transferable.[11]

QUESTIONS FOR DISCUSSION

I. INVESTMENT CREDIT INSTRUMENTS

1. What is the outstanding difference between a share of stock and a bond: (*a*) from the point of view of law? (*b*) from the point of view of investment?
2. Does a shareholder lend funds to a corporation? Is there any justification for calling a share of stock a credit instrument?
3. Is a bond always secured by a mortgage and the right to take possession of certain definite property under foreclosure proceedings?
4. Does a corporation always have outstanding bonds with prior claims to stock against gross earnings?
5. In the case of failure of a corporation to pay interest and dividends, whose loss is likely to be greater, that of the bondholders or of the shareholders?
6. What is meant by preferred stock? cumulative preferred? preferred participating? Which would you rather own, preferred or common stock? Why? Would your answer always be the same? Upon what factors might it depend?
7. What is meant by par value? market value? face value? book value?
8. How could the market value of a share of stock be $450 when its par value is only $100? How could its market value be only $8?
9. What is meant by issuing stock without par value? Explain how dividends could be ascertained under such circumstances. Explain how an investor would know how much such stock was worth.
10. What are the advantages of issuing stock without par value?
11. What is the nature and purpose of stockholders' rights?
12. Which of the different points of view from which bonds are classified do you regard as most significant?
13. How do you account for the development of so many different types of security for bond issues?

[11] Bills of lading and warehouse receipts also possess in substantial degree the qualities of transferability and negotiability. While not credit instruments, bills of lading and warehouse receipts are evidences of ownership of wealth. For illustrations of these instruments see pp. 380 and 382.

14. What is the meaning of each term under the heading on page 112, "Conditions Governing the Payment of Interest or Principal"?
15. What are the reasons for issuing short-term notes?
16. Why are short-term notes usually arranged in serial form? What is the security back of short-term notes?
17. A corporation has outstanding $3,000,000 of 5 per cent bonds, $1,000,000 preferred stock at 7 per cent, and $1,000,000 of common stock. If the net earnings (after interest has been paid) are $150,000, what dividends could be paid on common stock? If the following year the net income (before paying interest) should be cut in two, what dividends could be paid? If upon reorganization $1,000,000 of bonds were exchanged for preferred stock, what would be the state of affairs: (*a*) assuming net income to be $150,000? (*b*) $75,000?

II. COMMERCIAL CREDIT INSTRUMENTS

18. What is the distinction between commercial and investment credit instruments?
19. What are the two principal types of commercial credit instruments?
20. For what different purposes may promissory notes be drawn?
21. What is a joint note? a joint and several note?
22. Define a bill of exchange.
23. From what different points of view may bills of exchange be classified?
24. Where did the terms "foreign" and "domestic" bills originate?
25. What is meant by this: "first of exchange, second being unpaid"? What is the purpose of duplicate bills?
26. How does a certified check differ from an ordinary check?
27. How does a cashier's check differ from a personal check?
28. How does a personal check differ from a bank acceptance?
29. How does a bank draft differ from an individual draft?
30. What would you call an order drawn by a bank against an individual?
31. What is meant by "accepting a draft," and what is the party who accepts it called?
32. A may draw a draft against B for a debt of $1,000, or B may write a promissory note for $1,000 in favor of A. What will determine which instrument will be used?
33. Suppose A discounts the promissory note or sells the accepted draft to a bank: to whom would the bank look for payment in each case, (*a*) primarily, (*b*) secondarily?
34. Do you think that it is incorrect, strictly speaking, to call a check a credit instrument?
35. Draw up a classification of the various forms of instruments, showing which are really credit instruments and which are not.

III. THE USE OF CREDIT INSTRUMENTS IN TRANSFERRING WEALTH

36. State the different legal principles that serve to make these various instruments serviceable as a means of transferring wealth.
37. What devices have made these instruments readily transferable?
38. What peculiar advantages in the matter of transferability has a *negotiable* instrument?
39. A negotiable instrument is handled in accordance with certain "customs of the merchants." Enumerate them. Is it only merchants who use notes and bills of exchange at the present time?
40. What was the reason for the development of the principle of negotiability?
41. Can you account for the extension of the principle of negotiability to bonds on the same grounds?
42. Why is it that only bank drafts and checks are used extensively as media of exchange?
43. How do you account for the fact that some of these instruments are fully negotiable, others partly negotiable, others only readily transferable? Does it seem to you probable that the law consciously sought to facilitate the use of each of these instruments in the way to which it was best adapted?
44. Give a case in which the title would be good in the hands of a bona fide holder for value, but not enforcible between the original parties.
45. What is the purpose of "indorsement without recourse"? Is such an indorsement of any value from the standpoint of security?
46. What is an indorsement in blank?
47. A note with four indorsements is dishonored. To whom may the holder look for reimbursement?
48. What is meant by a "no protest" note? What is the effect?
49. How would you indorse a note to be sent through the mail?
50. How do you indorse checks payable to yourself?
51. Is the following a negotiable instrument?

CHICAGO, ILL., May 17, 1925

Due John Jones, one thousand dollars. Value received.

JOHN SMITH

52. An instrument is written in lead pencil in the following form:

CHICAGO, ILLINOIS

I, John Jones, promise to pay John Smith, or order, fifty dollars, value received

Mention several particulars in which this note is not in the usual form. Is it negotiable?

53. Is the following negotiable?

ST. LOUIS, MO., June 1, 1925

Three months after date, for value received, I promise to pay John Doe, or order, one hundred dollars, or ninety-five dollars if payable two months after date.

RICHARD ROE

54. Is the following a negotiable instrument?

New York, N.Y., June 1, 1924

For value received, I promise to pay to George Rogers, or order, one hundred dollars when he marries.

WILLIAM STONE

Would the foregoing be negotiable if it read "when he shall be twenty-one years of age"?

55. A check on a Chicago bank is given by A to B in Chicago on January 25. It is not presented for payment on January 26, and on January 27 the bank fails. Whose is the loss?
56. A check on a Chicago bank is given to A in New York on May 15. It reaches the Chicago bank on May 20, but the bank had closed its doors May 18. Whose is the loss? What principle should govern the decision in this and in the preceding case?
57. What is meant by absolute defenses?
58. What is the purpose of such defenses?
59. Draw up in proper form a negotiable instrument.

REFERENCES FOR FURTHER READING

Credit Monthly. Published by the National Association of Credit Men.

Gano, D. Curtis: *Commercial Law*, pp. 116–53.

Hagerty, James E.: *Mercantile Credit*, chap. ii.

Moore, Underhill: *Commercial Paper*.

Prendergast, William A.: *Credit and Its Uses*, chaps. iii–vii.

CHAPTER IX

THE FOREIGN EXCHANGES

In this chapter we are to consider the financial mechanism known as the foreign exchanges, by means of which the great majority of international trading and financial obligations are settled without requiring monetary payments. The "exchanges" have always been a sealed mystery to the rank and file of even well-informed people for the reason that an understanding of the mechanism involved requires a certain amount of simple technical information, which the "average citizen" is never willing to acquire. Of late, however, because of the great depreciation of foreign currencies that has resulted from the financial and trade exigencies of the Great War and its aftermath, and the effects of exchange fluctuations upon business conditions, the subject has attracted unusual attention, and even the man in the street is now vaguely conscious that foreign exchange is, somehow or other, a subject of no little practical significance.

I. THE NATURE OF THE PROBLEM

Foreign exchange is concerned with the settlement of international financial obligations. Whenever an American travels in Europe he requires funds with which to meet the expenses incident to travel; whenever a merchant in the United States buys goods from Europe, he needs a means of paying his debt to the foreign seller; whenever a European wishes to buy American securities, some means of payment must be found; in a word, whenever any international transaction takes place, a settlement must be made. The nature of the problem may be most clearly revealed by a statement of the principal sources of international obligations that have normally existed between the United States and Great Britain.

a) Transactions tending to cause an outflow of funds from the United States:

1. American imports of British goods.
2. American premiums on British insurance.
3. Interest payments on British investments.
4. American bank loans to British banks.
5. American payments of freight bills to British ship-owners.
6. Expenditures of American tourists abroad.

b) Transactions tending to cause an inflow of funds to the United States:

1. Exports of goods to Great Britain.
2. Payment of British insurance policies to Americans.
3. British investments in American securities.
4. British bank loans to American banks.

Now it is obvious that if every individual transaction involving payments by Americans abroad were settled in actual money, and if every transaction involving payments by Great Britain to the United States were met by a shipment of specie,[1] a very considerable portion of our monetary resources would be constantly in transit between the two countries, for the volume of international settlements effected in the course of each year runs into hundreds of millions of dollars. Such shipments of actual money would obviously be subject to the risks of ocean transportation, and to substantial costs through loss of interest on the money while in transit and in connection with the packing and expressing of the currency. Clearly a mechanism that would make possible a reciprocal cancellation of the greater part of these obligations would be of very great economic advantage. In brief, it is the function of the foreign exchanges to cancel all except the net balance of indebtedness, that is, the difference between the total of transactions involving an outward flow of funds, and the total of transactions involving an inward flow. This balance is met by currency shipments.

[1] Specie alone is acceptable in international monetary settlements, and it is accepted by weight and fineness only.

II. THE EXCHANGE MECHANISM

The means by which international payments are effected largely without the shipment of specie is by sending bills of exchange abroad in lieu of actual cash. In order to make the process clear, it will be necessary to point out, first, precisely what is meant by the parity of exchange, "gold points," and bills of exchange.

Exchange between the United States and England is said to be at par when a sterling bill is worth 4.866 in New York. What does par or parity of exchange mean, and how is this quotation, 4.866, derived? Parity of exchange is nothing but a simple statement of the relative value of American and British coins. The British monetary unit, the pound sterling, contains 4.866 times as much gold as the American monetary unit, the dollar. The par exchange rate thus depends upon the gold content of the monetary units of the different countries.

The par of exchange between the United States and France is 19.3—which means that the value of the gold franc is 19.3 cents in United States money. The equation is also often expressed the other way round, as 5.18 francs to the dollar. France, Belgium, Italy, Switzerland, and Greece belong to the Latin Monetary Union, and have monetary units of equal weight and fineness, though of different names; hence the par of exchange between the United States and all of these countries is 19.3. Parity of exchange with Germany is 23.8, the mark being worth 23.8 cents. The money of each of the various countries has its particular parity as compared with United States coins, and in turn the pound sterling, franc, etc., each has its parity with the coins of all the other countries. It is unnecessary for our present purpose to enter into a detailed discussion of all these quotations, for they all involve a common principle.

The use of bills of exchange reduces currency shipments.—The function of bills of exchange may best be revealed by the use of some concrete illustrations. Let us assume that Mr. A. in New York has sold £1,000 worth of goods to Mr. X in Lon-

don, and that at the same time Mr. B in New York has purchased £1,000 worth of goods from Mr. Y in London. It is apparent that if it could be arranged so that B could pay A and X could pay Y, it would be unnecessary to ship any currency in order to settle these obligations. If A were to draw an order (or bill of exchange) on X in London ordering X to pay Y £1,000 and then could sell the bill to B, he would receive his money from B; then if B sent this bill over to Y and Y presented it to X, who paid it, both obligations would have been settled without the use of any currency.

But in practice there are usually two difficulties which prevent this simple solution of the problem. In the first place, A is not usually acquainted with B, and X is not usually acquainted with Y. Secondly, the amounts involved in the two transactions are not usually identical. Accordingly, dealers in foreign exchange (banks and brokers) are required as financial intermediaries. When A draws his bill of exchange for £1,000 on the London buyer of his goods, he takes it to a foreign-exchange banker, who pays him, when exchange is at par, $4,866. The banker then sends the bill to a correspondent bank in London, which presents the bill to X for payment. The payment is next deposited with the London bank to the credit of the New York bank. Now when B wants to buy a bill of exchange he goes to the foreign exchange banker and the banker sells him a draft drawn against this London bank account—a draft for £1,000, or for whatever amount the buyer may desire.[2] B then sends the draft to Y in London and Y presents it to the bank against which it is drawn and receives his payment. The New York banker thus acts as an intermediary between A and B, serving in effect to bring them together, and serving also to make "change," that is, to break up bills of exchange into whatever denominations are required.

Sometimes these bills are drawn directly by the exporters against foreign banks with whom the foreign importer has made arrangements for the purpose. They are sometimes drawn pay-

[2] See p. 124 for a reproduction of one of these bills.

able at "sight," that is, when presented, and sometimes they run for thirty, sixty, or ninety days, etc. The drafts may have attached to them documents in the form of bills of lading and other shipping receipts, or they may be what are known as "clean bills," unaccompanied by any documentary evidence. There are many angles to the problem, giving rise to many different types of bills involving different methods of payment; but the foregoing simple illustration will suffice to reveal the essential principles in all cases.

It remains to be noted that bills of exchange are not always drawn by American banks or American exporters against foreign banks, and sold to American importers who have remittances to make. The process may be reversed—the method actually employed in any given case being a matter of agreement between the parties to the transaction.[3]

The price of exchange is determined by the demand for and supply of bills.—What now determines the price at which a bill of exchange can be bought or sold in the New York market? In the illustration above we assumed that exchange was at par. In fact, it is sometimes above and sometimes below par. The price of a bill of exchange is, like the price of wheat or any other commodity, a reflection of the relative demand for, and supply of, bills in the market at the moment. If at any given time £1,000,000 worth of sterling bills were offered for sale in New York and £1,000,000 worth were demanded, the price would be at par, that is, at 4.866. But if only £1,000,000 worth of bills were offered in the market for sale, and £1,200,000 worth were demanded, the price would be bid up above 4.866 by those who desired the bills as a means of meeting their obligations abroad. On the contrary, if only £800,000 were demanded, the sellers would have to make concessions in order to dispose of their bills.

The maximum extent to which the price of exchange can be bid up or forced down, as the case may be, is determined by the costs involved in shipping the actual specie. I should be willing to pay $4,866 for a bill of exchange with which to settle a £1,000

[3] For a more detailed discussion see chap. xix.

obligation, because that would be cheaper than shipping the currency. I should be willing to pay as high as $4,885, under normal conditions, for such a bill; but I should not be willing to pay more than that, because it would then be cheaper for me to ship the actual specie instead. On the other hand, I should be willing, if necessary, to sell a £1,000 bill of exchange for $4,845; but not for less, since it would then be cheaper for me to pay the expense of importing the actual currency. These points, 4.885 and 4.845, are known as gold-exporting and gold-importing points.

The supply of and demand for bills of exchange in the New York and London exchange market depend at any time not merely upon the relative volume of exports and imports. They depend upon all of the international operations outlined above (p. 143). Whatever the occasion for remittances of funds to Great Britain, bills of exchange are demanded in the market, and whatever the occasion for payments to the United States, bills of exchange are drawn and offered for sale. For instance, if an individual is contemplating a trip abroad, he places, say, $1,000 with his bank, with an express company, or with one of the tourist concerns, and asks for letters of credit or travelers' checks. It is then necessary for the bank where the funds have been deposited to transmit means of payment to the other side, and this it does by buying a bill of exchange which it sends to a correspondent bank in Europe, where it is credited to the account of the American bank and made available for the payment of checks when properly signed by the authorized party.

Finance bills serve as a buffer against currency movements.—Finance bills, which are to be considered in connection with the borrowing and lending of bank balances (see outline p. 143) also play an important part in maintaining the balance of payments and in minimizing shipments of specie. International bankers have frequent occasion to increase or decrease their balances with correspondent banks abroad; and they buy or sell *finance,* as distinguished from *trade,* bills of exchange as a means of accomplishing the desired result. Among the factors

making it desirable for a New York bank to increase its balance abroad would be higher interest rates in London than in New York.

As a means of minimizing the volume of currency shipments, international bankers also usually establish foreign credits by borrowing when there is reason to believe that the balance will soon turn the other way. If international obligations are considerably out of balance, however, it is impossible for the bankers to stand in the breach for long; exchange soon moves to the gold-exporting or gold-importing point, as the case may be, and gold flows out or in to restore the equilibrium.

Roundabout operations minimize the flow of specie.—Thus far we have been illustrating the principles involved in foreign exchange by reference to the trade and financial relations that obtain between the United States and Great Britain. The mechanism of the exchanges also makes it possible for a roundabout settling of balances involving three or more countries; for instance, there has long been a triangular trade situation involving the United States, Great Britain, and Brazil. The United States imports from, more than she exports to, Brazil; Great Britain has an unfavorable balance with the United States; and Brazil's imports from, exceed her exports to, Great Britain. Thus Great Britain owes the United States, the United States owes Brazil, and Brazil owes Great Britain. The exchanges make it possible for the United States to pay for her imports from Brazil by bills of exchange drawn against London bank accounts, such bills being acceptable because they can be used in paying Brazilian obligations to Great Britain. In a similar way, since Canada commonly has an adverse balance with the United States, but a favorable balance with England, it is usually advantageous all around for Canadian importers from the United States to meet their obligations by means of bills of exchange drawn against London banks by Canadian exporters to Great Britain.

Foreign-exchange dealers or traders also assist in this process of roundabout settlement by arbitrage transactions. The

skilful trader makes a careful study of the quotations in all the foreign-exchange markets at any given time. By virtue of temporary variations in rates on different countries he may make a slight profit by buying exchange in one market and selling simultaneously in another. These arbitrage transactions often involve several markets, and they thus tend to stabilize all the exchanges and hold them upon a common level, with movements of currency a last-resort measure.

In any given year the United States, then, will have a net outflow or net inflow of gold as a result of variations in the relative demand for, and supply of, bills of exchange, arising from trade and financial operations with all the world. Statistics of international currency movements are usually presented by the year; for example, in the year 1910 the United States would show a net inflow of gold of, say, $100,000,000. It is important to note, however, that during certain months or weeks of the year gold may be flowing out of a country and during other months or weeks it may be flowing in, the direction of the flow depending upon seasonal variations in the trade and financial relations between different countries. In the United States there is normally a surplus of foreign bills, with a consequent depression of exchange rates to the gold-importing point during the autumn and early winter, when American exports of cotton and wheat are large. In the spring, when American imports of British textiles and other manufactured goods are heaviest, exchange rates are frequently bid up to the exporting point.

III. THE MAINTENANCE OF EQUILIBRIUM

This mechanism of the exchanges, as we have seen, permits an outflow of specie from the United States whenever the total of foreign obligations that must be met is greater than the volume of remittances due the United States. Under normal circumstances an outflow of gold from any country cannot continue long,[4] for it is soon followed by financial and trade readjustments which will shortly restore the balance. An outflow of gold

[4] Except from a gold-producing country.

from the United States to England, for instance, would mean a lessened volume of funds in New York, with a tendency for interest rates to rise there. The inflow of funds to the London banks would at the same time tend to lower interest rates in London. In consequence international bankers would find it profitable to transmit, by means of bills of exchange, funds from London to New York, thus serving to restore the equilibrium of the exchanges and to prevent a further outflow of gold from New York, if not to bring about a reverse movement.

It is the generally accepted economic theory that if an outflow of gold from the United States to England should continue for any considerable length of time it would eventually cause a rise in prices in England and a fall in prices in the United States; whereupon American producers would find it more profitable to export than to sell in the domestic market, while American importers would find it less profitable to import commodities from a country with a high price level for sale in a country with a low price level. The same factors would obviously be operating on the British side, and English traders would strive to reduce exports and increase imports. Accordingly, the volume of exports would be somewhat increased and the volume of imports somewhat lessened. There would result a favorable balance of trade, and gold would flow back to the United States, thus restoring the international equilibrium.

IV. DOMESTIC EXCHANGES

The foreign exchanges find their counterpart in domestic exchange, that is, in the settlement of balances between the different financial centers of any given country. The domestic-exchange quotations are different, however, by virtue of the fact that the same monetary unit exists in New York as in Chicago, in Liverpool as in London. Par of exchange between New York and Chicago is, therefore, one dollar; that is to say, the dollar in Chicago is to the dollar in New York as 1 is to 1.

At any given time there are numerous obligations of vari-

ous types which require a remittance of funds, or "means of payment," from New York to Chicago, and vice versa. When the balance due New York exceeds the balance due Chicago, exchange on New York is at a premium, that is, above par. Since the cost of moving specie from Chicago to New York is about 50 cents per thousand dollars, one would pay as much as, but not more than, $1,000.50 for a bill of exchange with which to meet a thousand-dollar payment in New York. And one would never have to sell a thousand-dollar bill of exchange on New York for less than $999.50.

Between the different financial centers of the United States, as between foreign countries, specie moves only as a last resort. As in the case of international operations, the amount of specie reflects the net balance of trade and financial obligations. As with international operations, also, an important factor is always the transmitting of bank balances from one center to another through the purchase and sale of bills of exchange. There are also triangular settlements, as between St. Louis, New Orleans, and New York.

At certain seasons of the year, however, the balance against Chicago is such that specie moves from Chicago to New York; at other seasons funds move west. And when at the end of the year the net figures are shown, Chicago and vicinity will have had a net favorable, or unfavorable, balance with New York and vicinity. But, as with international operations, once more, there cannot be a continuous flow of funds from Chicago to New York, or vice versa, because changes of interest rates and ultimate changes of price levels bring in their train readjustments which cause a reversal of trade, and thus lead to the restoration of the balance.

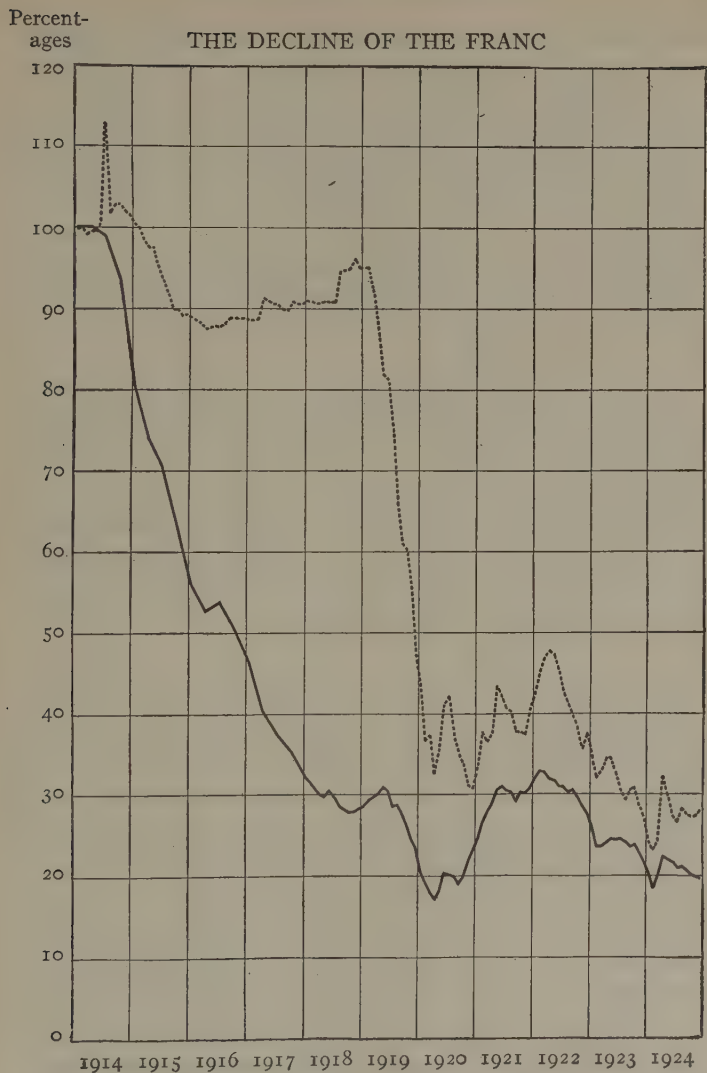
Under the Federal Reserve System the gold settlement fund at Washington, whereby the several Reserve banks settle their obligations to one another by bookkeeping transactions, has largely eliminated the necessity of transferring gold from one section of the country to another (see p. 588 for discussion).

due in part to seasonal commercial movements, in part to psychological factors which have influenced speculation in the franc, at times to changes in money rates and bond prices, and at other times to credit operations, as in case of the Morgan loan of 1924.

While the rigid control of the exchanges has been nominally released, the government, in co-operation with the Bank of France, has endeavored to exercise more or less continuously a restraining influence on exchange movements. It remains true, however, that the general downward movement of the franc is a fairly accurate reflection of the extent of deterioration of the French financial situation.

The foreign exchanges, international trade, and internal budget and currency conditions are closely interrelated.—Exchange depreciation may be produced either by an unbalanced state of international trade and financial operations or by an unbalanced domestic budget. If a nation's supply of bills of exchange available from export and service operations is insufficient to cover payments for necessary imports and other foreign obligations, the exchange will tend to fall—although it may be supported for a time by credit operations. The extent of the decline will, of course, depend upon the magnitude of the deficit in the balance of payments. Similarly, if the government's budget is unbalanced and the treasury resorts to the issue of paper currency as a means of meeting operating expenses, the exchanges will be affected—the extent of the depreciation depending upon the amount of the government deficit.

Sometimes exchange depreciation is due primarily to the one factor, sometimes primarily to the other, and sometimes to a combination of the two. For example, during the period of rapid depreciation of the German mark there was a huge deficit alike in the international balance of payments and in the domestic budget. German paper money was accordingly issued both for the purpose of meeting foreign obligations and domestic operating expenses. In connection with the recent decline of the franc, however, it is interesting to note that while there has



Dollar Exchange Rate of the Franc, as a Percentage of Par

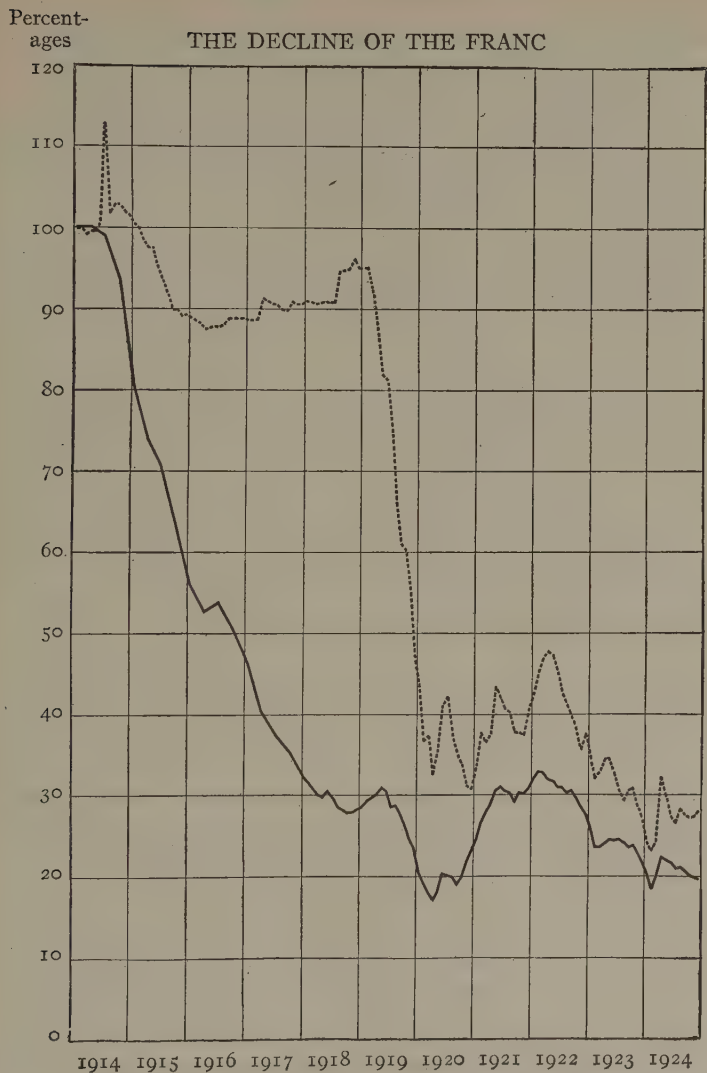
Domestic Purchasing Power of the Franc

due in part to seasonal commercial movements, in part to psychological factors which have influenced speculation in the franc, at times to changes in money rates and bond prices, and at other times to credit operations, as in case of the Morgan loan of 1924.

While the rigid control of the exchanges has been nominally released, the government, in co-operation with the Bank of France, has endeavored to exercise more or less continuously a restraining influence on exchange movements. It remains true, however, that the general downward movement of the franc is a fairly accurate reflection of the extent of deterioration of the French financial situation.

The foreign exchanges, international trade, and internal budget and currency conditions are closely interrelated.—Exchange depreciation may be produced either by an unbalanced state of international trade and financial operations or by an unbalanced domestic budget. If a nation's supply of bills of exchange available from export and service operations is insufficient to cover payments for necessary imports and other foreign obligations, the exchange will tend to fall—although it may be supported for a time by credit operations. The extent of the decline will, of course, depend upon the magnitude of the deficit in the balance of payments. Similarly, if the government's budget is unbalanced and the treasury resorts to the issue of paper currency as a means of meeting operating expenses, the exchanges will be affected—the extent of the depreciation depending upon the amount of the government deficit.

Sometimes exchange depreciation is due primarily to the one factor, sometimes primarily to the other, and sometimes to a combination of the two. For example, during the period of rapid depreciation of the German mark there was a huge deficit alike in the international balance of payments and in the domestic budget. German paper money was accordingly issued both for the purpose of meeting foreign obligations and domestic operating expenses. In connection with the recent decline of the franc, however, it is interesting to note that while there has



Dollar Exchange Rate of the Franc, as a Percentage of Par

Domestic Purchasing Power of the Franc

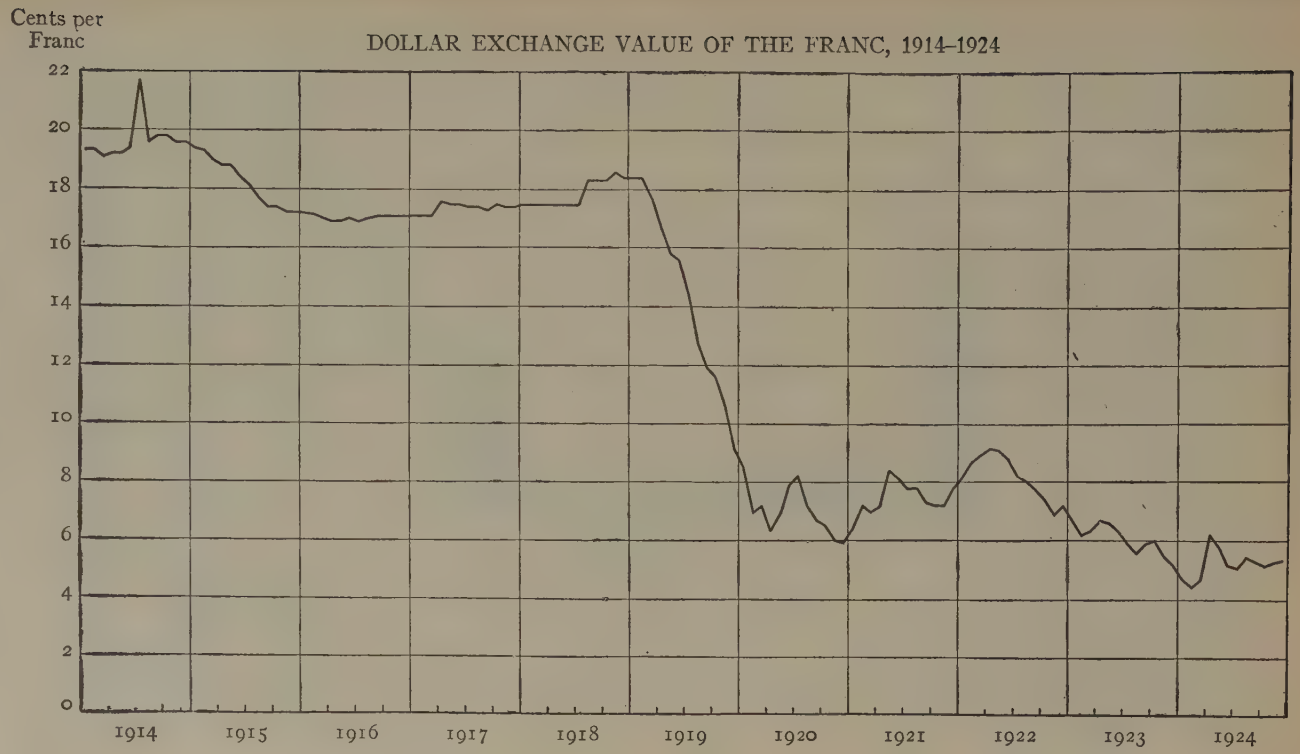
been a huge budget deficit, the international balance of payments has shown a considerable surplus.

Not only do international trade and budget deficits react upon the exchanges, but exchange depreciation reacts upon both the budget and the international balance of payments. Some writers hold that the difficulties start with currency inflation, while others contend that it is the depreciation of the exchanges caused by an unfavorable balance of payments with which the troubles begin. The truth of the matter appears to be that all these parts of the financial and economic mechanism are interacting in their operation.

The relatively close relationship between internal price movements in France and fluctuations in exchange rates is shown in the chart on page 155. As exchange rates declined, the prices of commodities within France rose in rough proportion, though with a lag. In order to make the two lines on the chart easily comparable, the exchange rates are expressed as a percentage of par and the price changes are expressed in terms of the falling purchasing power of the franc.

VI. THE RESTORATION OF THE GOLD STANDARD

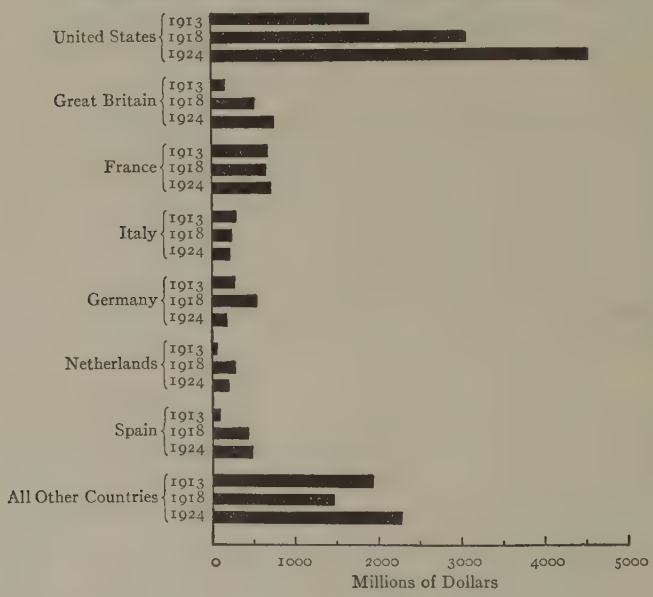
The disorganization of European industry and trade both during and since the war has resulted in a considerable redistribution of the world's gold supply. Despite enormous credit operations, the United States has acquired great quantities of gold in payment for goods and services rendered. The chart on page 158 showed the gold holdings of principal countries at the end of the years 1913, 1918, and 1924. For the United States the figures include the entire gold supply, whether in the Federal Reserve banks or elsewhere. The figures for the European countries, however, show only the amounts held in the central banks. Before the war large quantities of gold were used in the channels of ordinary circulation in European countries, but during the war these supplies were drawn into the central banks. Accordingly, the figures for 1913 do not include the


Cents per Franc
DOLLAR EXCHANGE VALUE OF THE FRANC, 1914–1924
22
20
18
16
14
12
10
8
6
4
2
0
1914
1915
1916
1917
1918
1919
1920
1921
1922
1923
1924

entire gold holdings of European countries, while those for post war years do.

This redistribution of the world's gold supply has complicated a return to the gold standard. Nevertheless, a number of European countries have recently succeeded in returning to a gold basis. In some cases, as in Germany and Russia, this has followed a period of virtual repudiation of the great masses of

REDISTRIBUTION OF WORLD GOLD SUPPLY



paper currency outstanding; in other cases, as in Austria, it has been accomplished solely by means of foreign credits; while in some cases, as in Great Britain and Sweden, it has been brought about by gradual processes of trade and financial readjustment.

It will be apparent from the preceding analysis that if European nations are to return to and maintain the gold standard, they must, on the one hand, obtain an international balance of payments and a balanced budget. Great Britain now has both, and the problem of maintaining the gold standard is therefore relatively easy. As a safeguard, credit arrangements have, how-

ever, been made with American banking institutions whereby in case of any sudden strain Great Britain could draw upon the United States for financial aid. In the case of Germany the problem is complicated by reparation obligations and interest upon the large foreign loans recently contracted. While the budget is balanced, the international trade situation is not, and Germany has thus far been able to maintain a stable exchange only by means of foreign loans. France now has a large favorable balance of payments; hence a return to a gold currency and stable exchanges is chiefly dependent upon the possibility of balancing the budget. The problem is, however, complicated by foreign debt obligations.

QUESTIONS FOR DISCUSSION

1. Enumerate as many sources of international obligations as possible, in addition to those listed on page 143.
2. Why is it that specie alone is acceptable in settling the balance of international obligations?
3. Define parity of exchange; gold points; premium; discount.
4. What data would you require in order to ascertain the parity of exchange between United States and Japanese money?
5. What is the service performed by the banks in connection with settling trading obligations by means of bills of exchange?
6. Show by a concrete illustration how bankers may find it profitable to draw finance bills when exchange is below par. What is the effect of such purchases upon the volume of currency shipments?
7. Describe the process by which each nation is required to settle with actual currency only its net balance with all the rest of the world.
8. What is meant by finance bills? Do they affect exchange rates in the same way as trade bills?
9. What will determine whether the United States has an inflow or outflow of gold in a given week or month?
10. Describe the process by which the international financial equilibrium is maintained.
11. In the light of the exchange mechanism is there any reason to fear an inundation of American markets by cheap foreign goods?
12. In the light of foreign-exchange analysis do you accept the doctrine that an excess of exports gives a "favorable" balance of trade?
13. Under what circumstances would an inflow of gold into a country be particularly advantageous? Under what circumstances would an outflow be disadvantageous? Give concrete illustrations, if possible.

14. One of the leading bankers of this country stated in 1916 that the United States had received a great inflow of gold and that means must be devised to prevent its outflow in the future. Since this banker was engaged in international financial operations, do you imagine the activities of his bank were, in fact, directed toward impounding this gold supply for the permanent use of America?
15. How does a nation which does not produce gold secure a gold supply?
16. What is the par of exchange between Berlin and Cologne? Paris and Berne? London and Montreal?
17. Enumerate the chief sources of obligations as between New York and Chicago.
18. What caused sterling exchange to rise to $7.00 shortly after the outbreak of the European war? Do you think it was necessary for the European nations to suspend, as a war measure, the normal operation of the exchanges?
19. By what means were the exchanges "pegged" by the European governments?
20. Why should this war-time control of the foreign exchanges have been abandoned in March, 1919? What would have been involved in a continuance of the policy of pegging the exchanges?
21. Explain how an unbalanced government budget affects the exchanges.
22. Show how depreciating exchanges affect government fiscal operations.
23. Explain why a balanced international trade and financial situation is necessary for the permanent maintenance of the gold standard.
24. Look up in the financial pages of the press the present exchange rates between the United States and the principal European countries.

REFERENCES FOR FURTHER READING

Brown, H. G.: *International Trade and Exchange,* chaps. iv and v.

Cross, Ira B.: *Domestic and Foreign Exchange,* chaps. iii and vi.

Escher, Franklin: *Elements of Foreign Exchange,* chaps. i, ii, iii, and v.

Foreign Currency and Exchange Investigation, Serial 9. Commission of Gold and Silver Inquiry, United States Senate, 1925.

Furniss, E. S.: *Foreign Exchange,* chaps. ii and iii.

Gregory, T. E. G.: *Foreign Exchange, Before, During and After the War.*

Moulton, H. G.: *The Reparation Plan,* chap. i.

Moulton, H. G., and Lewis, C.: *The French Debt Problem,* chaps. vi and ix.

Phillips, Chester A.: *Readings in Money and Banking,* chaps. xvii and xviii.

Whitaker, Albert C.: *Foreign Exchange,* chap. v.

CHAPTER X

THE MODERN FINANCIAL STRUCTURE

The great growth of credit operations which followed the development of large-scale business enterprise, particularly that organized on the corporate basis, has been attended by the development of an extensive and interdependent financial structure, designed to facilitate the raising of the funds required for capitalistic industry. The great number of financial instruments, agencies, and institutions that are utilized in connection with the borrowing operations of producing, manufacturing, and mercantile businesses is indicated in the diagrams on the accompanying pages.[1] The diagrams are designed merely to enable the reader to visualize the financial mechanism as a whole and to afford a general view of the financial structure of society, with its complex interrelations, as a preliminary to the detailed study of the numerous particular institutions which will constitute the subject matter of the succeeding chapters.

The diagrams, however, require a few words of explanation and qualification. In general, the purpose is to show the financial institutions and agencies that are employed in the assembling of the capital required by modern business enterprise. It is of note, first, that the financial structure involved in the raising of fixed capital for individual firms and partnerships, as shown on the first diagram, is relatively simple, since it is largely contributed by the owner, or owners, of the business. The greater complexity of the second diagram, moreover, is an indication that the development of the very intricate and extensive financial organization of the present day is largely attributable to the enormous growth of the corporate form of business organization.

[1]For a diagram showing the financial structure that has been developed in connection with agricultural borrowing, see p. 625.

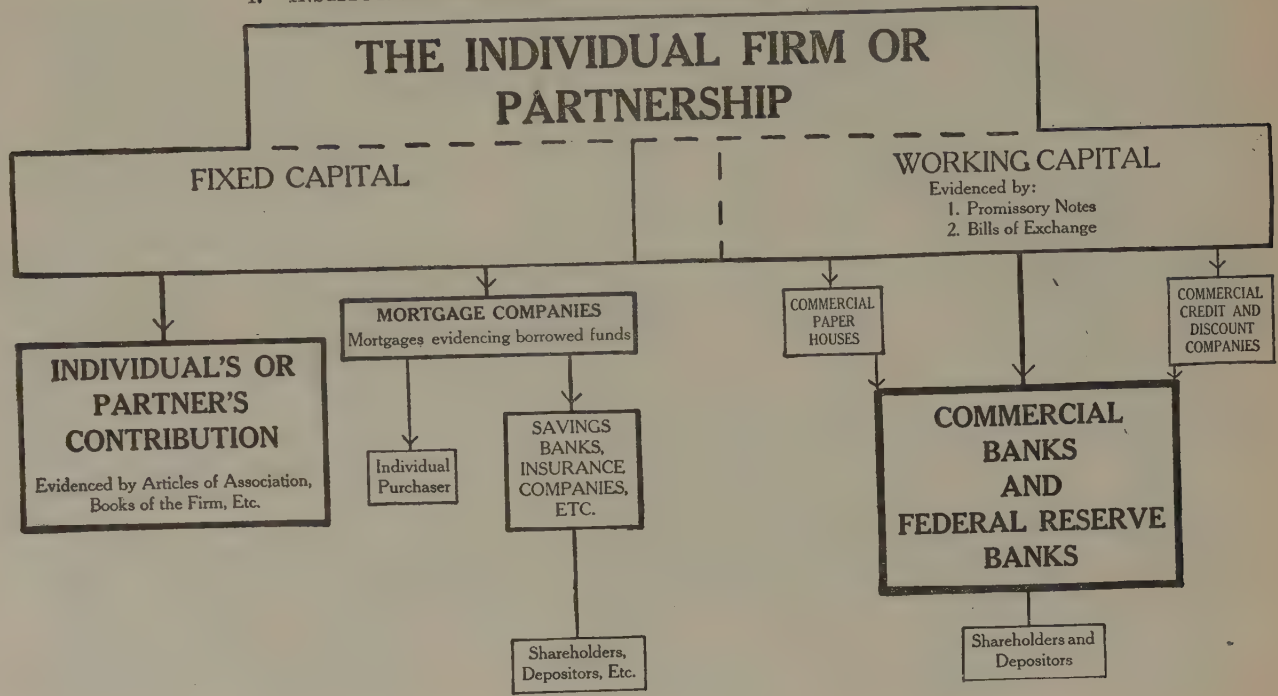
With reference to the corporation diagram, particularly, the arrows pointing downward from fixed capital indicate the movement of the securities that are issued by corporations through the financial institutions that assist in marketing them to the ultimate purchasers, who in the last analysis furnish the funds to the corporation. In some cases the securities do not find lodgment with individual investors but are purchased by financial institutions, as is indicated by the arrows which point to savings banks, insurance companies, etc. In these cases, however, the funds are still furnished by individual savers, namely, the shareholders, depositors, etc. These financial institutions thus serve as intermediaries in the process of rendering individual savings available for the uses of corporate industry.

The stock market has been placed at one side of the diagram in order to indicate that it is seldom a direct intermediary in the marketing of securities. It is rather a great central market place which is made use of by nearly all of the various types of financial institutions in connection with their operations, as well as by the ultimate investors in securities. All of these relations will be made clear in the chapter on the stock exchanges. The lines connecting the stock exchange with the different institutions are designed to indicate in a general way the interrelations that exist.

Finally, it will be seen that the commercial banks are directly concerned with the raising of working capital, and indirectly associated with investment banking institutions in the raising of fixed capital. Note the transverse line connecting commercial and investment banks. A line might also be drawn from the commercial banks to the fixed capital side of the corporation; for to a considerable extent they purchase securities directly and make loans to corporations for fixed capital purposes (see chap. xviii and pp. 468–69.

To safeguard against misconception it is necessary to state that the diagrams could not be made to reveal all the phases of the modern financial structure without complicating them to the

I. INSTITUTIONS UTILIZED IN FINANCING NON-CORPORATE ENTERPRISE



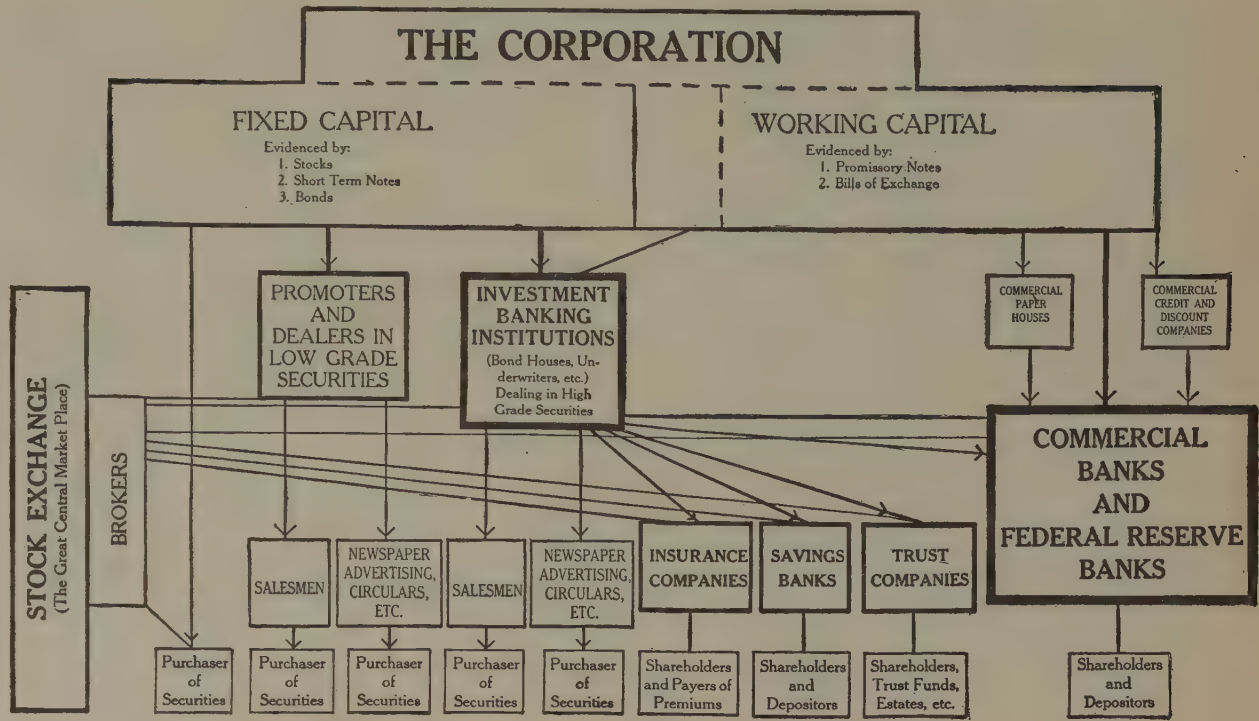
point of obscurity. It will be well, therefore, to point out here certain things which they do not indicate.

First, although a line is drawn from the corporation direct to the purchaser of securities, the corporation chart fails to convey an adequate idea of the vast amount of capital that is raised without the assistance of financial intermediaries. A very great number of our corporations have raised their capital by direct subscription; indeed, it may perhaps safely be said that a large percentage of our present-day corporations secured their start by converting individual firms or partnerships into corporations and issuing shares of stock to the owners. There are many "close" corporations—those which have never raised any funds from general subscription. Among some of the more important of such corporations are: most of the great New England cotton mills; several of the larger chemical companies; the Du Pont Powder Company; many of the great department stores in all the large cities of the country; the large corporations in the aluminum, brass, zinc, asbestos, and sulphur industries; and the great majority of financial institutions. Perhaps the most conspicuous example of the close corporation in the United States at the present time is the Ford Motor Company. Mr. Ford and his son are now said to be the sole proprietors of the largest privately owned business in the country.

Second, the charts do not reveal the raising of capital by the common process of creating a surplus through setting aside a portion of the earnings for an expansion of the business. A tremendous amount of capital is thus raised, especially by corporations. It will be noted that this method merely involves a decision of the directors of the corporation with reference to the disposition of earnings.

Third, the charts reveal only those credit operations which involve the borrowing of funds, as distinguished from actual goods. Working capital in part takes the form of materials bought on credit. A retailer, for instance, may do most of his borrowing by buying goods from wholesalers on time. But since

II. INSTITUTIONS UTILIZED IN FINANCING CORPORATE ENTERPRISE



the wholesalers, who sell these goods on credit to the retailer, usually borrow from the commercial banks during the interval while awaiting payment, it all comes to much the same thing in the end—working capital is largely borrowed from the commercial banks.

The corporation chart does indicate, however, that a portion of the working capital is usually derived from the sale of securities. Indeed, if a business is to have a good credit standing with its bank, it must, in fact, provide a considerable part of its working capital by stock subscriptions.

Fourth, one might conclude from the corporation diagram that savings banks are associated only with the problem of raising fixed capital. As a matter of fact, many savings-bank loans are also made for working capital purposes (see chap. xvii).

Fifth, the position of the trust company in the financial structure of society is not adequately revealed. As the chart stands, the trust company is related only to the raising of fixed capital and is placed in a position parallel with savings banks and insurance companies. In fact, as we shall later see (chap. xvi below), the trust company performs so wide a variety of functions that it is impossible in the present diagram to indicate its relationship to the entire financial structure. The commercial banking department of the trust company would go with the commercial banks, the bond department with the bond-houses, the savings department with the savings banks, the insurance department with the insurance companies. But, in addition, the trust company performs a great variety of services for the holders of corporate securities in connection with the safekeeping of valuables, the holding of mortgages in trust, the transfer of ownership of stocks and bonds, the financial reorganization of companies, etc.

Finally, the diagrams tend to give a false impression of specialization by financial institutions. The truth is that more and more there is being conducted under one roof and by a single administrative organization a great variety of financial

activities (see chap. xxix). Just as the trust company has many departments, the commercial bank nowadays usually has associated with it savings and bond departments, and, in recent years, trust departments as well. The designations given on the diagram must, therefore, be considered as representing types of financial functions rather than (in every case) distinct and specialized financial institutions.

The remaining chapters of the volume will be devoted to a discussion of the services and functions that are performed by the numerous parts of this financial organization, the problems of regulation that have arisen in connection with the various types of financial institutions, and the interrelations of this intricate financial mechanism with the larger economic organization of which it forms so important a part.

CHAPTER XI

THE CORPORATION AS A DEVICE FOR RAISING CAPITAL

At the head of the diagram showing the financial institutions and agencies that function in the raising of capital in the modern industrial world (p. 165) is placed the corporation, the dominant type of business organization at the present time. In discussions of the corporation as a form of organization for the conduct of business, its advantages over the partnership have usually been listed as follows: (1) greater ease of raising capital; (2) perpetual (or, at least, definite) existence; (3) centralization of managerial responsibility and power. It is the purpose of the present chapter to outline the significance of the corporation as a capital-raising institution—to account for its origin and development in terms of capital requirements.

It is not too much to say that the outstanding advantage of the corporation over the partnership is its greater effectiveness in assembling the capital required for large-scale enterprise. Partnerships may be—and some have been—given a perpetual life. Partnerships may delegate the management to a single individual or group of individuals and hold them responsible for results, quite after the fashion of the corporate organization. Indeed, some modern partnerships are thus organized; while the "silent partner" is, of course, a common phenomenon. But without shares of stock and bonds and without the principle of limited liability the partnership could not possibly effect the accumulation of the large quantities of capital required by the great majority of modern businesses. Some modern partnership associations, it is true, have the equivalent of shares and some have been organized with a limited liability; but these features constitute the very essence of the corporate form of organiza-

tion. To the extent that they have now been taken over by partnerships the latter may be said to have been "corporationized."

I. ADVANTAGES OF THE CORPORATION IN RAISING CAPITAL

The corporation is for several reasons an effective agency for the raising of capital. In the first place, the division of the capital into small units in the form of shares of stock or bonds makes it possible to attract funds from people of very moderate means. To this end the par value of bonds and of shares of stock is made small, often very small in the case of shares. While the standard unit is $100, many companies are organized that sell shares at $10, $5, $1, and even at 5 cents each.

Second, the division of the shares and bonds of corporations into small denominations also makes it possible for individuals to diversify their investments and thus reduce the risks of loss to a minimum. Even so small a fund as $10,000 may be invested in a hundred or more different companies. It is of note that "baby bonds," of $100 denominations, and with instalment-payment provisions, have become increasingly popular in recent years.

Third, the division of corporate securities into bonds and shares serves to attract the investments of people of different temperaments and of different economic position. Bonds, constituting a first claim upon earnings, make their appeal to those who are by temperament conservative, or whose economic position is such as to make safety of investment the prime requisite. On the other hand, stock offers an opportunity of higher returns and thus appeals to people who are willing to take chances in the hope of large rewards, and to those whose economic position is such that they can afford to assume larger risks.

Similarly, the division of stock into preferred and common shares is calculated to appeal to investors of different degrees of conservatism. The preferred stock, while not so safe as bonds, is

still relatively safe in well-established companies, and it yields a higher return than bonds. Common stock is subject to still greater risks, but affords the possibility of very large returns. Nowadays there is, moreover, a great variety of subclasses of shares, notes, and bonds, all designed to facilitate the raising of funds through varied appeals.[1]

Fourth, the easy transferability of bonds and shares, made possible by the development of organized stock exchanges, enables an individual to withdraw his investment in a corporation at almost a moment's notice. The significance of this for our present purpose is that the ease with which one may get out of a corporation has an important bearing on his willingness to get in. Under present conditions one is not necessarily committed to a given undertaking once and for all; with readily marketable securities the investor retains almost instantaneous command over capital.

Fifth, the large aggregations of capital made possible by virtue of these various advantages, together with the limited-liability principle discussed below, give to the corporation unusual competitive strength and stability, and this in its turn renders securities the more attractive to the general investing public.

Sixth, the corporation now universally embodies the principle of limited liability, i. e., liability of each shareholder only to the amount (usually) of his individual stock. This is indispensable to the assembling of the vast amounts of capital required by modern business establishments, for it would be utterly impossible to induce an individual to purchase shares of stock in a corporation of large size if his individual liability to creditors was equal to the entire capital. Unlimited liability will be assumed only where the owners are few in number, where they are well known to one another, and where the amounts involved are relatively small.

It should be noted that the principle of limited liability

[1] See pp. 109–13.

applies only to stock, the bondholders being creditors of the corporation. It is apparent, finally, therefore, that even without the principle of limited liability the corporation would have advantages over the ordinary partnership in the assembling of capital, since the sale of bonds would in any event make it possible to draw funds from a large number of investors.

The growth of large-scale enterprise was dependent upon limited liability.—Light will be thrown upon the importance of the principle of limited liability from the point of view of facilitating the raising of capital by a brief review of its history. For a considerable period during English industrial history, joint-stock companies did not enjoy the principle of limited liability. Following a period of great speculation in the shares of unincorporated "companies,"[2] in which many people were financially ruined, the so-called Bubble Act of 1719 prohibited unincorporated companies from acting as corporate bodies or selling transferable stock. This prohibition interfered with the formation of genuine trading companies and "greatly hindered the employment of accumulated capital."[3] The strict enforcement of the act, however, was found to be impracticable and for many years it was allowed to remain a dead letter, many new unincorporated companies continuing to be formed.

The Bubble Act was repealed in 1825 and the Crown was empowered to grant charters of incorporation; but the individual owners of the corporation were made personally liable for the whole or any part of the debts of the corporation. During the next thirty years men of investment and social standing held aloof from concerns in which the smallest investment involved so great a risk. Of 4,049 companies registered provisionally from 1844 to 1855, 3,084 were abandoned before complete registration.

The principle of limited liability was so important, however, for the raising of the capital required for the rapidly expanding

[2] See p. 173.

[3] S. E. Perry, "History of Companies' Legislation in England," *Journal of the Institute of Bankers,* Vol. XXIX.

size of industrial enterprises that Parliament finally passed an act in 1856 permitting the formation of corporations "with limited or unlimited liability, with all the benefits of incorporation." Banking and insurance companies were, however, still excluded. The complete acceptance of the limited liability principle, together with the adoption of a general incorporation law, paved the way for the great expansion in the size of business enterprise that marked the second half of the nineteenth century. It proved a particular stimulus to investments in foreign countries where the risks incident to unlimited liability were especially heavy.

In the United States, it appears that the principle of limited liability was accepted from the very beginning. Davis informs us that "limited liability was recognized as an attribute of an incorporated company almost invariably without specific mention; indeed, it was a principal object desired through incorporation."[4] With scarcely an exception, early American corporations, in fact, enjoyed the advantages incident to limited liability.

II. STAGES OF CORPORATE DEVELOPMENT

A study of the changes that have occurred in the organization of industry from the Middle Ages to the present time indicates that the development of the corporation was in truth very largely governed by capital-raising requirements. While the germ of the corporate idea is no doubt to be found in the guild associations of the early Middle Ages, the first corporations of significance, from the point of view of business enterprise, were the great trading companies of the sixteenth and seventeenth centuries. These companies were organized for the purpose of developing trade with foreign dominions and as colonizing agencies.[5]

[4] *Essays in Earlier History of American Corporations*, IV, 317–29.

[5] The joint stock was also used in the sixteenth and seventeenth centuries in mining companies, and in nearly every important monopoly. William E. Price, *English Patents of Monopoly*, p. 131.

The early corporation embodied numerous features; it was a bundle of special rights and privileges, and has been aptly called a collection of monopoly grants of power. While there was no single reason for the use of the corporate organization, large capital requirements were nevertheless in every case the paramount factor. The shares of stock of small denomination made it possible to secure capital contributions from a large number of individuals.

Moreover, unusual risks were involved, owing to the uncertainties both of ocean transportation and of trade, and this was a serious deterrent to the advancement of large sums by any one individual. The corporation made it possible for individuals to distribute their risks over a number of different undertakings.

Investment opportunities were few before the corporate era. —These early corporations were necessary not only for the raising of capital for overseas enterprises. They appear to have been quite as serviceable in the accommodation of would-be investors. Macaulay writes:

> During the interval between the Restoration and the Revolution the riches of the nation had been rapidly increasing. Thousands of busy men found every Christmas that, after the expenses of the year's housekeeping had been defrayed out of the year's income, a surplus remained; and how that surplus was to be employed was a question of some difficulty. In our time, to invest such a surplus, at something more than three per cent on the best security that has ever been known in the world, is the work of a few minutes. But in the seventeenth century, a lawyer, a physician, a retired merchant, who had saved some thousands and who wished to place them safely and profitably, was often greatly embarrassed. Three generations earlier, a man who had accumulated wealth in a profession generally purchased real property, or lent his savings on mortgage. But the number of acres in the kingdom had remained the same; and the value of these acres, though it had greatly increased, had by no means increased so fast as the quantity of capital which was seeking for employment. Many, too, wished to put their money where they could find it at an hour's notice and looked about for some species of property which could be more readily transferred than a house or a field. A capitalist might lend on bottomry or on personal security but, if he did so, he ran a great risk of losing interest and principal. There were a few joint-stock companies, among which the East India Company held the foremost place; but the demand

for the stock of such companies was far greater than the supply. Indeed, the cry for a new East India Company was chiefly raised by persons who had found difficulty in placing their savings at interest on good security. So great was that difficulty that the practice of hoarding was common. We are told that the father of Pope, the poet, who retired from business in the City about the time of the Revolution, carried to a retreat in the country a strong box containing near twenty thousand pounds, and took out from time to time what was required for household expense; and it is highly probable that this was not a solitary case. At present the quantity of coin which is hoarded by private persons is so small that it would, if brought forth, make no perceptible addition to the circulation. But in the earlier part of the reign of William the Third, all the greatest writers on currency were of opinion that a very considerable mass of gold and silver was hidden in secret drawers and behind wainscots.

The natural effect of this state of things was that a crowd of projectors, ingenious and absurd, honest and knavish, employed themselves in devising new schemes for the employment of redundant capital. It was about the year 1688 that the word stockjobber was first heard in London. In the short space of four years a crowd of companies, every one of which confidently held out to subscribers the hope of immense gains, sprang into existence—the Insurance Company, the Paper Company, the Lutestring Company, the Pearl Fishery Company, the Glass Bottle Company, the Alum Company, the Blythe Coal Company, the Swordblade Company. There was a Copper Company, which proposed to explore the mines of England, and held out a hope that they would prove not less valuable than those of Potosi. There was a Diving Company, which undertook to bring up precious effects from shipwrecked vessels, and which announced that it had laid in a stock of wonderful machines resembling complete suits of armour. In front of the helmet was a huge glass eye like that of a Cyclops; and out of the crest went a pipe through which the air was to be admitted. The whole process was exhibited on the Thames. Fine gentlemen and fine ladies were invited to the show, were hospitably regaled, and were delighted by seeing the divers in their panoply descend into the river and return laden with old iron and ship's tackle. There was a Greenland Fishing Company, which could not fail to drive the Dutch whalers and herring busses out of the Northern Ocean. There was a Tanning Company, which promised to furnish leather superior to the best that was brought from Turkey and Russia. There was a society which undertook the office of giving gentlemen a liberal education on low terms, and which assumed the sounding name of the Royal Academies Company. In a pompous advertisement it was announced that the directors of the Royal Academies Company had engaged the best masters in every branch of knowledge, and were about to issue twenty thousand tickets at twenty

shillings each. There was to be a lottery—two thousand prizes were to be drawn; and the fortunate holders of the prizes were to be taught, at the charge of the company, Latin, Greek, Hebrew, French, Spanish, conic sections, trigonometry, heraldry, japanning, fortification, bookkeeping, and the art of playing the theorbo.[6]

The second stage in corporate development came during the seventeenth and eighteenth centuries when the corporate principle was extended to such enterprises as insurance, banking, and inland navigation. The importance and the supposed limitations of the joint-stock company during this period may be glimpsed by reference to a well-known quotation from Adam Smith:

> The only trades which it seems possible for a joint-stock company to carry on successfully without an exclusive privilege are those of which all the operations are capable of being reduced to what is called routine. . . . . Of this kind is, first, the banking trade; secondly, the trade of insurance in fire and from sea risks and capture in time of war; thirdly, the trade of making and maintaining a navigable cut or canal; and fourthly, the similar trade of bringing water for the supply of a great city.

He adds that in order to render the use of the joint-stock company feasible, two other circumstances should concur: "first, that the undertaking is of greater and more general utility than the greater part of the common trades; and secondly, that it requires a greater capital than can easily be collected into a private copartnership." It appears that the corporation was not regarded as particularly well adapted to the efficient conduct of most lines of business, but that it was a very useful device in lines of activity where it was necessary to raise large sums of capital.

The third stage in corporate history may be designated the transportation period, beginning in England about 1780. Adam Smith, who wrote in 1776, had foreseen the use of the corporation in connection with canal building, although the great era of canal transportation came after his time—from 1780 to 1815. The corporation was almost universally used as a means of assembling the large capital required for canal construction. It is

[6] Quoted in Bagehot, *Lombard Street* (1912), pp. 131 ff.

significant, from the point of view of the capital-raising function of corporations, to note that the canal companies did not conduct transportation; the canal barges were run by individual boatmen. The use of the corporation was here dictated solely by capital-raising requirements. This was also true of the turnpike companies.

With the development of railway transportation after 1830 the use of the corporation was greatly extended. While in the case of the railroads the corporation was early used both as a capital-raising and as an operating device, the capital-raising feature was of primary importance. It was manifestly impossible to raise the funds required by individual or partnership means. As with the old trading companies, not only was the volume of capital required very large, but the risks assumed were likewise exceptional.

The fourth stage is that of the extension of the corporate form of organization to producing, manufacturing, and mercantile enterprises. Although the corporation was used to some extent in ordinary business in both England and the United States before 1800, it was not until after the development of efficient and cheap transportation systems that it became the dominant form of organization in manufacturing and mercantile lines. During the earlier years of its history the factory system did not require very large aggregations of capital, for the simple reason that markets were narrowly circumscribed, owing to the inadequacy and the great cost of transportation, as also to the decentralization of wealth and population. The volume of output that could be sold by any single plant was thus definitely limited. Under these conditions only a few thousands of dollars of capital were required for the largest business establishment, and individuals and partnerships found no serious handicap in financing such enterprise. But while the early factories did not require large capital, in view of market limitations, their development gave rise to an insistent pressure for wider markets, in order to make possible a larger and more profitable scale of

industrial enterprise; and this undoubtedly hastened the development of efficient transportation.

The widening of markets that resulted from the development of modern transportation facilities gave in turn a tremendous impetus to the enlargement of the size of business undertakings. Given cheap transportation to the markets of the world, there was almost no limit to the profitable size of the business unit. By 1845 railroad transportation had definitely proved itself, both in England and in the United States; and before 1860 it had succeeded in linking the great Middle West with all the markets of the world.

The second half of the nineteenth century then witnessed a gigantic effort on the part of industries to expand the scale of their productive operations to a point where they could take full advantage of the world-markets that were available to them. Cheap transportation meant reduced costs for the laying down of goods in distant markets. And the enlarged output made possible by widened markets still further reduced the cost per unit and made possible a competition over ever widening areas. This tremendous growth in the size of the producing unit, and also in the size of the commercial and distributing businesses concerned with the marketing process, made the use of the corporation as a capital-raising device just as indispensable here as it was in foreign trading, finance, insurance, and transportation. Where during its earlier history the factory required a capital of perhaps a few thousand dollars, the large-scale business enterprises of the present necessitate capital accumulations of hundreds of thousands, millions, and even hundreds of millions of dollars.

Thus did the changing structure of industrial society, with its ever increasing size of business undertaking and ever enlarging capital requirements, gradually extend the scope of corporate industry, until today the corporation is the dominant form of business organization. Without minimizing the advantages of the corporation as an operating agency, it may be repeated that

intrinsically and historically the corporation is a capital-raising device. We shall see in the following and in other chapters that this changing industrial structure, with the development of the corporation, has called into existence most of the financial institutions that function in the economic system of today, and has profoundly modified the problems of organization and control of all of them.

QUESTIONS FOR DISCUSSION

1. Is the corporation to be regarded primarily as an efficient form of organization for the conduct of a business once established, or primarily as an efficient instrument for raising capital? Is it either exclusively?
2. What advantages do shares of stock and bonds afford as a means of raising capital?
3. Why should both bonds and stock have been developed?
4. What is the purpose of issuing different kinds of stock and bonds?
5. Without bonds and stock it would be impossible for an individual of moderate means to diversify his investments. Why? Indicate the probable results of such a situation.
6. In what way, precisely, is the ready transferability of bonds and shares an inducement to investment?
7. What would people do with temporarily idle funds in the absence of an opportunity to invest in readily marketable securities?
8. Indicate how the perpetual existence of a corporation might facilitate the raising of capital.
9. What is the significance of the limited liability principle from the viewpoint of capital raising? Has it any significance from any other point of view?
10. What opportunities for investment existed in England before the extensive development of the joint-stock company?
11. Have we had speculative manias since the time of which Macaulay wrote? (See pp. 181–83.) Do plenty of opportunities for conservative investment always deter people from indulging in speculation?
12. During that period of English history when corporations were not granted the limited liability principle, did they possess any advantage over partnerships in the raising of capital? Were they subject to any comparative disadvantages?
13. Why was it so difficult to enforce the Bubble Act in England?
14. How do you account for the hostility to the principle of limited liability that was manifest in England until the middle of the nineteenth century?

15. Suggest some of the probable industrial consequences of the refusal to permit limited liability in England between 1825 and 1856. What were the outstanding industrial requirements of this period?
16. Do you know of any classes of corporations today whose liability is not limited to the individual shareholders' contributions?
17. Outline the different stages in corporate development and indicate why each new stage developed.
18. Has Adam Smith's prophecy come true? What did he overlook?
19. Are there any great divisions of economic activity that are not at the present time characteristically organized on the corporate basis? If so, what? Is this likely to be a permanent state of affairs?

CHAPTER XII

THE MARKETING OF LOW-GRADE SECURITIES

In this chapter we are to consider the financial machinery that has been developed for the marketing of low-grade, or speculative, securities and the problems of regulation which are associated therewith. The financial machinery employed in the distribution of low-grade securities is indicated at the extreme left of the diagram on page 165. The investment banking institutions, shown nearer the center of the chart, are associated with the marketing of high-grade, or non-speculative, securities. These will be considered in the following chapter.

It is impossible to give a very precise definition of low-grade securities, for there is no hard-and-fast line of demarcation from high-grade issues. But in general the term refers to securities of such a nature that the risk of loss to the investor is acknowledged to be relatively large. There would seem to be at least four distinct types of securities that should be discussed in this connection: (1) those that are fraudulent; (2) those issued by corporations in new and hence untested lines of industry; (3) those issued by new and hence untried companies in staple lines of industry; and (4) those issued by companies engaged in lines that are essentially speculative in their nature—that normally involve a high degree of risk. Another classification of low-grade issues is found in the securities designated "Class D" under the Illinois Securities Law, a digest of which is presented on pages 190–95.

It should be added that low-grade securities virtually always take the form of shares of stock. Borrowing by means of bond issues is essentially a later stage in the process of raising capital, for the simple reason that the property basis required as security

for bonds usually implies a "going concern," the capital for which has already been raised by stock subscriptions; and in any event the bondholder is more amply protected, and hence the risks assumed are less.

The sale of securities of new corporations, except in the case of relatively small concerns, the stock of which is entirely subscribed by a small group of investors, usually involves what is known as "promotion" of the sale of securities. If capital is to be raised for a new corporation it is obviously necessary that the securities be brought to the attention of possible investors, just as it is necessary to commend manufactured commodities, through advertising, to the good graces of potential purchasers. The marketing of low-grade securities, however, has been subject to such grave abuses that many have urged that "stock promotion" be forbidden by law.

The problem of controlling the issue and sale of low-grade securities is twofold in its nature: first, to prevent the marketing of fraudulent and practically worthless shares; second, to make it possible for the potential investor to secure adequate information upon which to base a reasonably intelligent judgment of the value of honest, but highly speculative securities.

I. THE PROMOTION OF FRAUDULENT AND WORTHLESS SECURITIES

Hundreds of millions of dollars are annually taken from ignorant investors by the sale of utterly worthless securities. The mail frauds alone that have been discovered and stopped by the federal government in a single year have reached a total of $129,000,000. There is, of course, no way of estimating the volume of undetected fraud; and there are numerous cases lying within the twilight zone between fraud and legitimacy for which the laws afford no redress.

The post-war period, particularly, has been marked by the issue of enormous volumes of highly speculative securities. Literally thousands of companies have been organized for the sale of securities in enterprises of every sort. The movement has

been accelerated by virtue of the increased earnings obtained by many people during the war, and by the habit of investing that was engendered by the Liberty Loan campaigns. Indeed, the possession of Liberty Bonds has been made the basis of extensive stock-selling campaigns, thousands of individuals having been induced to exchange their bonds for securities promising fabulous rêturns. Despite all the efforts at suppression that have been made by state, municipal, and federal governments, hundreds of millions of dollars have been taken from the pockets of the people by fraudulent investment schemes.

The promoter of a new issue of securities has various means at his disposal for reaching the investing public. As the diagram on page 163 indicates, one of these means is newspaper advertising, a method that has been followed very extensively in recent years. It is particularly efficacious in boom periods when the general public is both prosperous and credulous. The nature of the appeal that may be made is indicated in the sample advertisement on page 187. A second method is the sending of circulars through the mails to a list of selected names. This method is perhaps the cheapest of any. Its effectiveness largely depends upon the care and judgment with which the list of names has been chosen. Another method involves the employment of salesmen who interview potential investors and attempt to convince them of the exceptional nature of the opportunity offered. While more costly than newspaper or circular advertising, this method possesses the advantage that goes with personal contact. The plausible salesman, who can look a hesitating and stammering investor in the eye and pat him on the shoulder at the psychological moment, is in a much more strategic position to silence doubts than is the cold page of a newspaper or circular letter. It is not to be considered that the foregoing methods are necessarily mutually exclusive. All, indeed, may be resorted to simultaneously.

The nature of a great deal of the "promotion" that is being engaged in every year may be surmised from the following advertisement recently appearing in a New York newspaper, which

sets forth the necessary qualifications for a writer of promotion literature:

> Wanted: Well-educated young man to write literature and circulars for stock broker. No knowledge of securities necessary. Must have good imagination and flow of language and write in a convincing style.

There are well-known "earmarks" of a swindle.—As a result of an analysis of a large number of promotions that proved to be swindles, the following earmarks of a stock-offering of doubtful or fraudulent character have been compiled. It should be stated, however, that honest promotion schemes usually possess some of these "earmarks":

1. The argument that the investor should buy immediately because the price of stock will be advanced within a short time. It is obvious that the arbitrary advancing of the price by a promoter does not increase the true value of the security.

2. The argument that the investor should send a remittance by return mail, or, better still, by wire because there are only a few shares left for distribution. Such golden opportunity, however, usually knocks a second time.

3. The argument that "prominent citizens" are associated with the company and that accordingly the merit of the stock as an investment is virtually guaranteed.

4. The argument that other companies engaged in the same or a similar line of business have made millions from an original investment of little or nothing.

5. The argument that the company desires to place its stock in the hands of very small investors, so that control may not become vested in a "coterie of capitalists." A similar argument is that the company desires to permit only a limited number of persons in each state or in each city to buy the stock. Democratic organization and control as a means of preventing the capitalistic octopus from reaping the rewards of the wonderful idea to which the company has the exclusive right is regarded as a very effective selling device. Companies of this sort always delight in the opportunity to enrich people who find themselves in moderate circumstances.

6. The argument that the company has orders and contracts already in sight, or under consideration, or about to be under consideration, which will insure large earnings on the stock issued. It will be apparent, however, that even when a company has such contracts actually in force, money may be lost as well as made on an agreement to do a certain thing at an agreed price.

7. The argument that the company has assets largely in excess of its stock issue. Mention is seldom made of offsetting liabilities.

Among the physical earmarks of swindling promotion literature, the following have been listed:

1. A picture of the president of the corporation. He is usually a clean-cut, aggressive type of individual, distinctively American in appearance.

2. A picture of a factory or of an oil field or of a mine shaft, in some part of which is displayed a sign showing that the photograph is genuine.

3. The adoption of a name that is similar to that of a well-known firm or corporation.

4. Absence of reputable financial or banking support.

5. Testimonials of character by unknown persons with imposing business titles.

6. The listing of high-grade securities in circulars promoting worthless enterprises.

7. Sales on the instalment plan. The instalment plan is to be distinguished, however, from the partial-payment plan used by many reputable brokers for well-seasoned listed stocks. Instalment sales do not usually permit the investor to require a return of the money invested, even in case of fraud. On a partial-payment contract with a reputable broker, however, the investor may order the sale of his stock at the market price and the immediate remittance of his balance.

The career of a promoter is often a vivid one. There have been innumerable cases of downright fraudulent promoters who

have carried on their operations for many years. The following biography of a promoter is typical:

Death stepped in yesterday and cut short the kaleidoscopic financial career of George Underhill, past master in the art of extracting the mites from the pockets of the middle class in exchange for brilliantly colored stock certificates.

Underhill's most recent stock-selling venture was the Spring Nut Lock Company, said to be capitalized for $4,000,000, the stock of which was peddled in small lots, chiefly by appeals sent through the mails and advertising in magazines circulating in the small towns and rural communities.

Another venture of recent date was the organization of a syndicate to promote what was called the Ford machine gun.

He embarked in the promotion business in 1904, when he attempted to float the Tennessee Development Company. This concern, which was one of his own creations, was capitalized at $500,000, and Underhill endeavored to exchange stock certificates for gold by extensive advertising.

He painted rosy pictures of the money-making possibilities of this stock, playing up the idea of a "triple profit." The plan was to buy Tennessee lands from which the timber would be cut, making one profit; then sheep were to be turned loose to graze upon the land, thus making a second profit; and finally, coal could be mined from beneath it, thus reaping a third profit.

But Underhill waxed even more eloquent in his advertising literature, holding out as inducements to possible investors, in addition to the triple profit, an added "probable oil find" and "other products from the land, such as fruit, and farm produce, the bottling and sale of mineral water, the sale of pipe clay, the raising and sale of poultry, hogs, cattle, mules and horses, the breeding of Angora goats for fanciers, etc."

He intimated that as much as 60 per cent in annual profits might be realized from this venture, but according to persons who investigated the proposition the whole scheme revolved around a hundred-acre farm in Tennessee, owned by Underhill's father.

In March, 1905, he was president and treasurer of the George Underhill Company, advertising agents, which was forced into bankruptcy. Liabilities of the company aggregated $39,396, and creditors received practically nothing.

In 1906 Underhill launched into the promotion business again, and became fiscal agent for the Hoosac Tunnel Mining Company. He sold $200,000 worth of stock during that year, but the company proved a failure.

During the same year he sold stock in the Trinity Mining Company.

Some of it was sold as low as 35 cents a share. Later he sold stock in the Copper Gold Mines Leasing Company and was also active in a concern known as the Continental Securities Company.

In 1915 Underhill sold stock in the Eagle Macomber Motor Company of Sandusky, Ohio. On May 13, 1915, he was arrested by the federal authorities on orders from Cleveland, Ohio, where he had been indicted on a charge of using the mails to defraud. This was in connection with the sale of 2,000 shares of stock in the Buick Oil Company to a woman in Youngstown, Ohio.[1]

The following case illustrates the nature of the advertising campaigns that are sometimes conducted in connection with the sale of fraudulent securities. A St. Louis business organization checked up on the mailings which a Texas oil firm (so-called) sent to one person. There was a total of 91 mailings, and the report summarizing the facts says: The material itself weighed approximately 11 pounds; 125 envelopes were used; 79 multigraphed pages were sent, represented by 13 one-page letters, 20 two-page letters, 6 three-page letters, and 2 four-page letters; 52 fake newspapers of four or more pages were sent; 39 pieces of highly lurid prospectus material were utilized; 34 return post cards were furnished; and 72 subscription blanks were inclosed.[2]

II. THE SALE OF HIGHLY SPECULATIVE SECURITIES

A large amount of capital is annually raised by corporations in lines of business that are highly speculative, such as oil and mining. Such enterprises, of course, afford a fertile field for the operations of the sharper; but even where they are not fraudulent they are nevertheless often based upon such slender possibilities of success that the losses to innocent investors are quite as serious as in the cases of outright fraud. Perhaps the most notable recent cases of this type are found in the oil fields of Kansas, Texas, and California. The discovery of oil in various parts of the country has laid the basis for the wildest sort of speculation in land adjacent to the oil fields. For instance, the

[1] From the *Chicago Tribune*, April 5, 1918.

[2] Taken from a publication of Stromberg, Allen and Co., Chicago

development of the Southern Kansas Pool resulted in the organization of a veritable horde of companies, each with prospectus and maps showing the wonderful profits to be secured from oil development in adjoining counties. Nor is such promotion, when once well started, to be confined merely to oil. Hundreds of salesmen travel over the farming sections of the state, "offering shares in everything from oil prospects to motor trucks and from car couplers to adding machines." Under the Blue Sky Law of Kansas there had been authorized up to July, 1919, as many as 238 stock-selling companies. Of these, 142 were oil companies, and almost every county in the state was represented. Besides these companies there were scores of others disposing of units in oil leases, a device that has been developed as a means of circumventing the regulations imposed by the Securities Act. The losses resulting from the purchase of such speculative securities were enormous.

The following is part of a circular letter used in advertising a Texas oil project:

WHAT WILL YOUR ANSWER BE?

When the fortunes made by the investors in the oil fields of North Central Texas have been written into history; when the CHILDREN and the GRANDCHILDREN of these investors have been made prosperous and independent and are enjoying the advantages of higher education and world travel which wealth alone can give—

WHAT WLL BE YOUR EXCUSE TO YOUR CHILDREN?

—that they do not also have the advantages which a small investment in the world's greatest and probably the last Frontier of over-night Fortunes in gushing oil wells, would have made possible?

When your children, or your grandchildren ask why you, too, did not share in the profits of this, the world's greatest oil boom—

WHAT WILL YOUR ANSWER BE?

Can you tell them that you did not have the nerve?

Can you tell them that you did not have the opportunity?

That might be true if we had not sent you the facts concerning the greatest oil field the world has even known—it might be true if newspapers and magazines from Maine to California, from the *Saturday Evening Post,* the *Golden Rule, Truth,* and other well-known, reliable publica-

tions on down to the little local newspapers, had not carried page after page of news of this oil boom that you surely have had a chance to read, giving indisputable evidence that some of the nation's greatest and quickest small fortunes have been and are being made right now in Texas oil fields.

Can you tell your children or your children's children that you were a Doubting Thomas—that you stood back and waited while men and women from all over the world with more nerve and courage than yourself bought up all of the available chances to make fortunes?

Can you explain to them that you didn't have sufficient ready cash to take advantage of this big Texas oil boom? You might use this reason with success but our monthly payment plan makes it possible for even the smallest wage earner to get a share of the profits in this great oil boom where $100 has so often made a small fortune of $10,000 to $100,000.

Can you tell your children or your grandchildren that you doubted the sincerity of the Trust Company which brought to your notice the chance to share in the profits of the great Texas oil boom?

This might have furnished you an excuse if we had not sent you the best evidence on earth—evidence written by men and women who live in all parts of the country who have told, in personal letters, of the satisfaction and profits gained by dealing with us and following our recommendations.

The limited number of shares in the Pre-organization Syndicate of the Ranger-Texas Oil Company which you have now a chance to acquire, are, without doubt, the most desirable shares we have ever offered in our entire history, and here is exactly the reason that we say so:

In the first place, this Syndicate privilege is being extended to only a limited and carefully selected few whom we regard as leaders in their community, and *you* are one of these. By making you a large and quick profit we will not only get your future patronage, but that of your friends as well.

You can only get the limit to which any one person is entitled, which is 200 shares. The present selling price is $12.00 per share, but we cannot guarantee this quotation unless you place your order by wire, following it with the enclosed application.

This application also gives you an option, until July 30th, on double the number of shares that you subscribe for at this time, at only $16.00 a share. We have every reason to believe that these shares will be selling for at least $25.00 and possibly $30.00 before July 1st; therefore you have a chance to clean up a nice sum of money on your option, without investing a cent.

WHAT WILL YOUR ANSWER BE? Have you the nerve and the courage to trust your own judgment this very minute rather than face your chil-

dren and your children's children with excuses, and get a telegram off to us reserving the number of shares you want? If you have, it may prove to be the turning point in your life.

III. BLUE SKY LEGISLATION

In an endeavor to protect the investor from fraudulent promotion schemes and to insure that prospective purchasers of speculative securities shall be provided with adequate information on which to base intelligent judgment, forty-six states of the Union have in recent years enacted what is known as "blue sky" legislation. The first of these laws was adopted by Kansas in 1911. Nevada and Delaware are the only states which do not now have such laws, and to these may be added the District of Columbia.

Blue sky legislation has been primarily directed toward the supervision of dealers in securities through the installation of systems of inspection and through the exercise of a modicum of discretionary executive control in granting licenses to dealers. While there is a great deal of non-uniformity among the various states, there is a tendency to exempt the securities of the following types of issuing agencies: banks, building and loan associations, foreign governments, municipalities, and public utilities. Some states exempt co-operative banks, creameries and mortgage companies. In fact, an examination of the laws of all the states indicates that practically every type of issue is in some state exempted from blue sky legislation. For example, in four states mining corporations are exempted from the provisions of the law.

While this legislation has undoubtedly to some extent prevented fraud and the sale of valueless securities, the results of the legislation have been by no means as effective as was anticipated. The reasons for the lack of complete success are as follows: In the first place, they have in most cases attacked the problem from its most complex and difficult end—that of regulation after the securities have reached the hands of the dealers. In the second place, the wide variations in the laws of different

states have afforded many loopholes for the sale of fraudulent securities. Stock issued by a corporation in one state may be sold in another state, even though similar issues of corporations organized under the laws of such state could not be sold within its boundaries. For instance, the law of California requires that before offering its securities for sale a company must submit its proposition to a state commission for approval. While this prevents the issue and sale of unsatisfactory securities by California corporations, it does not prevent companies organized in other states from selling their securities in California. So long as California newspapers will print the stock-selling advertisements of companies organized in other states, opportunity for disposing of fraudulent and highly speculative securities to the people of California remains practically without restriction.

The Illinois Blue Sky Law is an advanced type.—The Illinois Securities Law, effective June 11, 1919, has gone farther in the way of regulation of the issue and sale of investment securities than that of any other state. It is to some extent modeled after the English investment securities legislation passed many years ago. The law is directed not only to the activities of dealers; it also supervises the issue of the securities. For the purpose of the act, the securities are divided into four classes, designed to indicate the degree of speculation involved. The classification is as follows:

A. Securities, the inherent qualities of which insure their sale and disposition without fraud. Within this group are included:
   1. Securities issued by a government or governmental agency
   2. Securities issued by any national or state bank or trust company, building or loan association, or insurance company of this state
   3. Securities issued by any corporation operating any public utility, in any state where the issues of such utilities are regulated by law
   4. Securities dealt in on the New York, Chicago, Boston, Baltimore, Philadelphia, Pittsburgh, or Detroit stock exchanges
   5. Securities whose prices have been quoted from time to time for at least a year in tabulated market reports published as news items, and not as advertising, in a daily newspaper of general circulation, published in this or in an adjoining state, including Michigan

6. Securities issued by any corporation organized for non-profit-making purposes

B. Securities, where the inherent qualities are such or the nature of one or both parties to the sale thereof such that their sale and disposition without fraud is assured. This comprises the following types of securities:

1. Those sold by the owner for the owner's account exclusively, when not in the course of continued and repeated transactions of a similar nature
2. Increased capital stock of a corporation, distributed directly among its stockholders, without the payment of any commission or expense to agents, brokers, etc.
3. Those sold by or to any bank, trust company, or insurance company or association, organized under the laws of Illinois or of the United States, or under the supervision of the department of trade and commerce or the auditor of public accounts of Illinois; or by or to any building or loan association of the state; or any public sinking fund, trustees, or to any corporation or any dealer or broker in securities
4. Those sold or offered for sale at any judicial, executors, or administrators' sale or any bankruptcy or public sale or auction held at any advertised time or place.

C. Securities based on an established income. This class includes the securities issued by any business which has been in continuous operation not less than two years and which has shown net profits, exclusive of all prior charges, as follows:

1. One and one-half times the annual interest charges upon all outstanding interest bearing obligations
2. In the case of preferred stock, not less than one and one-half times the annual dividend
3. In the case of common stock, not less than three per cent per annum

D. All securities not falling within Classes A, B, and C

The main provisions of the law may be summarized as follows:

I. Provisions governing the offer of securities for sale:

Securities in Classes A and B are exempt from the provisions of the blue sky law

Securities in Class C may be sold only after filing a sworn statement in the office of the secretary of state describing the securities to be sold, stating the law under which and the time when the corporation or business was organized, giving a balance sheet of assets and

liabilities, an income or profit and loss statement, and an analysis of the surplus account, together with the names and addresses of its principal officers, directors, or trustees, and other pertinent facts, data, and information, establishing the character of such securities.[8]

Before any Class D securities may be offered for sale, there must be filed in the office of the secretary of state documents and statements as follows:

1. A description and the amount of the securities intended to be offered for sale
2. If the issuer is a corporation, a certified copy of the charter or articles of incorporation and by-laws
3. If the issuer is a firm, trust, partnership, or unincorporated association, a copy of the articles of partnership, association, or trust agreement
4. The names, addresses, and prior occupations during a period of not less than ten (10) years prior to filing such statement (giving details as to time, place, and address of employer and reasons for discontinuance of employment) of the officers, directors, or trustees of the issuer, if it be a corporation, or of the persons composing the issuer, if the issuer be a non-incorporated association
5. A description of the nature of the industry engaged in or intended to be engaged in and the approximate time when such industry was or will be established
6. An inventory showing the assets of the issuer
7. An appraisement of the assets of the issuer
8. A statement in detail of the gross income of the issuer and the source or sources thereof and of its operating and other expenses for a period of twelve (12) months prior to the date of filing such statement, or for the period of the existence of the issuer if less than two years prior to the date of filing
9. A copy of the most recent balance sheet of the issuer, showing the financial condition of the issuer at a date not more than thirty (30) days prior to the date of filing, and giving an analysis of surplus account from inception of such issuers
10. A copy of the mortgage, trust deed, indenture, or writing securing

[8] These provisions allowed the secretary considerable administrative latitude, and at first he demanded very elaborate and detailed statements, inventories, and accounts for qualifications. A great deal of unnecessary annoyance and expense resulted, and therefore on November 8, 1919, a new ruling was passed which greatly simplified the requirements by permitting the filing of sworn summaries instead of detailed schedules. Since then public hostility to the law has been greatly diminished.

the securities, whereunder the same are issued, if any such instrument there be

11. A copy of the form of the securities intended to be offered
12. A copy of any and all subscription blanks to be used in the sale thereof, which subscription blanks shall have printed thereon, "These are speculative securities"
13. A statement as to the manner in which the securities are to be offered and sold

At any time, either before or after the filing of such statements, the secretary of state may designate certified public accountants to make examination of the books, records, and documents of the issuer and make a report thereon.

If the statement discloses that any of such securities are intended to be issued for any patent right, copyright, trademark, process, or good-will, for promotion fees or expenses, or for other intangible assets, the amount or nature thereof should be fully set forth and the securities issued in payment therefor should be delivered in escrow to a bank or trust company designated by the secretary of state, under an escrow agreement that the owners of such securities shall in the case of dissolution or insolvency not participate in the assets of the corporation until after the owners of all other securities have been paid in full.

In case any statement or document filed in the office of the secretary of state shall in his judgment be inadequate or not in compliance with the act, or in case the plan disclosed by such documents would in his judgment tend to work a fraud upon the people, or if it appears that the documents are false in any important particular, the secretary of state shall apply for an injunction to restrain the further sale of such securities.

II. Provisions affecting dealers in securities:

When Class D securities are to be sold through a solicitor, agent, or broker, a statement must be rendered giving the names, residences, qualifications, occupations, and business experience of such solicitor, agent, or broker for the preceding ten years. The signatures of each and every solicitor, agent, or broker shall be attached to such statement.

Any dealer or owner may sell Class D securities only after filing in the office of the secretary of state a statement of the amount and description of the securities to be sold by him, the maximum price for which they are to be sold, and giving his address by street and number, qualifications, occupations, and business experience for the preceding year.

An irrevocable contract must be executed by such solicitor, agent, and broker authorized to offer or sell such securities to the effect that the issuer will receive in cash not less than 80 per cent of the proceeds of the sale of the securities, without liability to pay any further expenses or commission.

So long as any security continues to be offered for sale, new and supplementary statements must be filed at the expiration of each six months' period, showing: (1) the amount of securities sold, sale price, the amount of cash proceeds received therefor; (2) all changes in the financial condition of the issuer or in its management or property, accompanied by a copy of the most recent balance sheet, which must be not more than thirty days prior to the date of filing.

Each financial statement, prospectus, advertisement, etc., published or distributed for the purpose of selling securities in Class D shall contain the following words in bold-face type: "Securities in Class 'D' under Illinois Securities Law. These are speculative securities." But it shall be unlawful to make any other reference to the fact that the provisions of the law have been complied with. Furthermore, all such advertising literature shall contain a statement of the assets, liabilities, income, and expenses of the issuer, the law under which the issuer was incorporated or organized, and the names and addresses of all officers, directors, and trustees of the company. A copy of such financial prospectus, etc., shall be filed in the office of the secretary of state within ten days after the first circulation, publication, or distribution. It shall be unlawful to publish or circulate therewith a statement of the earnings of other companies engaged in a similar business.

Under a recent ruling by the secretary of state, dealers may offer and provisionally sell all classes of securities *before* they have been accepted by the secretary as properly qualified, actual delivery of the securities themselves not being made until after qualification.[4]

III. Penalties:

The penalties attached to the act are severe. Attempts to sell securities without full *compliance* with the provisions of the act are punishable, in the case of dealers, with fines as high as $10,000, or one year's imprisonment, or both; and for sale of securities in case the issuer is known to be insolvent, when the purchaser loses by such sale,

[4] The necessity and justice of this ruling is obvious. The process of qualification is often long, and if the dealers have to wait during this period before they can solicit purchases, the securities will be moved to some other part of the country where they can find a quicker market; and profit that should normally accrue to the Illinois dealers will be lost to them.

$10,000, or five years, or both. In addition, dealers who sell in violation of any provision are liable for the full purchase price to the purchaser, plus reasonable attorney's fees; and for misrepresentation of the facts contained in the filed statements, "to a maximum fine of $5,000 or one year's imprisonment, or both."

Two main questions present themselves in connection with this comprehensive law. First, is it adequate to prevent misrepresentation and fraud? Second, does it impose undue burdens on the development and conduct of business?

The law does not reach certain important evils.—With reference to the first question, the general conclusion appears to be that the law is effective as far as it goes; but that it completely fails to reach various classes of operations—among which are some of the most important that such a law is designed to control. In the regulation of reputable dealers in securities, it appears to be successful enough; but in the regulation of dealers of questionable character, it has thus far made but little progress.

The same holds true for the marketing of such securities. The two agencies by which doubtful securities are most commonly disposed of—newspaper advertising and direct correspondence—do not come under its jurisdiction at all. In the latter case, the federal government exercises some control; and in the former, efforts have been made to enlist the Chicago newspapers against the acceptance of spurious advertisements; but the effect upon the general situation has not been great. Finally, in the case of doubtful securities handled through Illinois dealers, and especially of securities issued by corporations of other states there is apparently no means of insuring the detection of non-compliance with the law, or of failure to file and qualify before sale. This is perhaps the greatest single weakness that has appeared in the Illinois law; it is one which is common, however, to nearly all the blue sky legislation of the present.

The law handicaps legitimate Illinois dealers.—With reference to the second question, the restrictions it places upon the development of new enterprises are probably not great, although it is too soon to be sure. A bona fide concern can qualify its

securities under the law without much difficulty; and the slight handicap here is more than compensated for by the partial suppression of fraudulent enterprises. But upon the conduct of established banking and brokerage businesses in Illinois the law has already had some ill effects. Because of the red tape, expense, and delay involved, it is operating to drive securities away from Illinois markets, for the issuers find it less costly to sell their securities, by mail, in other states. Moreover, by requiring the dealer to pay his fees and undergo the expense of qualification before any sale can be made, the law, in the case of the smaller issues, frequently wipes out practically all profit. Because of this, various New York bankers have already shifted a considerable portion of their business from the western to the eastern markets. Moreover, the delays incident to qualification often make it impossible for dealers to take advantage of a sudden favorable turn of the market.

It is of interest to note that under the working of the Illinois law in the first twelve months of its existence, a great many applications for permission to sell securities in Illinois were denied. Out of a total of 519 applications to sell securities in the state, 208 were disapproved, the sums involved totaling $66,917,410, of which $57,636,840 was in Class D and the remainder in Class C.

IV. SUGGESTED CONTROL OVER THE FORMATION OF CORPORATIONS

The experience up to date under the new Illinois Securities Law, and with blue sky legislation in general, raises the fundamental question, Is this the right way to attack the problem? The Committee on Legislation of the Investment Bankers' Association of America has issued the following statement:

> To the present time such acts as have been passed and put into effect have been fundamentally wrong in the way they sought to go about solving the problem. . . . . The theory of licensing reputable dealers in investment securities has proved to be worse than useless, in that reputable people do not need to be controlled, and . . . . a person already violating the

law, and subject to criminal prosecution, will not be deterred from his ways by the placing of one or more additional statutes on the books.[5]

There is undoubtedly much truth in this statement. Even the very comprehensive Illinois law, as we have seen, completely misses a large field in which misrepresentation and fraud are common, while at the same time it imposes heavy burdens on another field which is normally free from questionable practices. And with the exception of the Illinois law, blue sky legislation has applied only to the sale of securities already issued. The question is therefore pertinent, Is not the only effective form of control that which is imposed at the source—which actively governs, as none of our laws now do, both the actual issuing of the securities and the formation of the corporations themselves? If so, a federal law, or uniform state laws, would have to be devised on lines radically different from any now in existence, providing comprehensive administrative machinery and conveying wide discretionary powers to a responsible executive department.

With reference to federal control, it may be noted that some federal experience in this field was gained during the war. Because of the necessity of disposing of great quantities of Liberty Bonds, it became necessary to restrict the issue and sale of securities to corporations which were essential to the winning of the war. There was accordingly organized in the Treasury Department a Capital Issues Committee, which passed upon all applications for new financing. This committee was demobilized shortly after the Armistice, along with the rest of our war machinery. Numerous suggestions have since been made, however, that such a committee be organized as a permanent part of the machinery of federal regulation.

Control of the issue of securities should not prohibit new financing.—The suggestion that both the formation of the corporations and the actual issuing of securities be subjected to effective control raises, however, another fundamental question.

[5] *Investment Bankers' Association of America Bulletin,* VIII (December 10, 1919), 125–30.

If new industries are to be developed, they must be enabled to secure capital through the issue and sale of securities. Freedom from legal restriction in the issue of securities has, as we have seen, given rise to very grave abuses and heavy financial loss to nearly all classes of people. But it has left the door open for the financing of new, and hence uncertain and speculative, industries; it has in many ways facilitated our industrial progress. In endeavoring to protect the investing public from fraudulent securities, we should not go so far as to prevent entirely the marketing of speculative issues; on the contrary, we must permit the ready financing of new enterprise or become industrially stagnant.

If we are to do more than guard against fraud in the marketing of securities, and furnish the necessary information on which an intelligent investor can form a reasonably sound judgment—if we are to go back of the selling process and place in the hands of government officials the power to veto an honest issue of securities, merely on the ground that such an issue would be highly speculative, we should be lodging with government officials a substantial control in directing our industrial development. Or if we refuse to permit any securities to be issued for public sale until the issuing corporation has proved successful over a period of years, we compel a corporation to pass its novitiate either as a partnership or as a closed corporation where the funds are derived entirely from a small group of interested investors.

All things considered, it is doubtless wise to attempt a more rigid control over the formation of new corporations; for it is conceivable that such control may be so safeguarded that only good would result from its inauguration. It would seem that two results, at least, might reasonably be achieved. On the one hand, a plan might well be devised that would shift the risks of starting and financing new enterprises to the classes which can best afford to bear the risks; namely, the larger private investors and capitalists, rather than the rank and file of small investors. On the other hand, the promotion business should be made un-

profitable; indeed, it should be made impossible for men to float new schemes, take their profits out of the promotion process, and then sell out, leaving the enterprise to work out its own salvation, as best it may.

This is not the place, however, either to attempt a formulation of the details of securities' legislation or to reach any final judgment on the whole question of blue sky regulation. It will be sufficient if the foregoing consideration of the nature of the promotion business and the difficulties that have been encountered in connection with blue sky legislation make it clear that we still have before us some very baffling problems in regulating the issue and sale of low-grade securities.[6]

QUESTIONS FOR DISCUSSION

1. What is meant by low-grade securities? Might bonds ever be included?
2. What are some of the principal types of low-grade securities? Classify them by different branches of industry.
3. Examine the quotations of securities on the New York and Chicago stock exchanges. Do you find among the shares there traded in any belonging to (*a*) the industrial group? (*b*) the mining group? (*c*) the automobile group? (*d*) the oil group? Are the issues of these companies low grade?
4. Examine the quotations of securities on the New York Curb. Are all of these highly speculative low-grade issues?
5. Do you imagine that all of the oil and mining companies whose stocks are daily being bought and sold are fraudulent or worthless concerns?
6. May low-grade securities in time become high-grade securities? If so, under what circumstances? Would it have been a good thing to have prevented the raising of capital for such enterprises?
7. What classes of people are most frequently besought to buy low-grade securities? What classes of people take the greatest risk when buying such securities? What classes of people can least afford to buy highly speculative securities?

[6] For this material on securities' regulation the author has drawn heavily upon a paper prepared by one of his students, Mr. J. W. Angell. Much of the phraseology, even, has been borrowed. See *Journal of Political Economy* (April, 1919), pp. 307–21.

8. What ways are available to newly organized corporations for raising the capital required? Which way would you adopt? Under all circumstances?
9. Do you think it is necessary to protect the people from investing their funds in such schemes as those promoted by George Underhill?
10. Judging by the number of oil and mining companies that have been organized since the Great War, do you think investment knowledge has advanced much since the time of the South Sea Bubble?
11. Was the post-war speculative craze attributable to any lack of conservative investment opportunities?
12. Do you think the Ranger-Texas Oil Company has any possibility of proving successful?
13. What ways are available for preventing fraud in the promotion of new companies?
14. Why is it so difficult to apprehend and punish the guilty parties?
15. Do you think any of the provisions governing the issues of securities in Class C, under the Illinois Securities Law, are unduly onerous?
16. Do you regard any of the provisions governing the issue of Class D securities as unduly severe?
17. Under the Illinois Securities Law, as it stands, would it be possible to raise capital for a new concern by the sale of securities to the general public?
18. Can a concern furnish a balance sheet and an income statement if it is not already a going concern?
19. Do you favor the abolition of all promotion?
20. "All that the state can hope to do is to prevent fraud in the selling of securities and to see to it that only reliable parties engage either in the issue or sale of securities." Do you agree?
21. "All agree that the solicited investor should not be permitted to buy blindly, even if he is willing to do so. But should we go farther? Should the state administrator say, 'This is an unsound venture; finance it privately, if you can, but you cannot finance it by a general solicitation or offering'? In the answer to this question lies the fundamental diversity of opinion among the advocates of blue sky legislation." What is your opinion on the subject?
22. "When a company applies for a charter, it should be the duty of the state to ascertain whether the individuals who are organizing the concern are men of ability and integrity, and whether the company has any possibility of success." How could the state know whether a concern had any possibility of success?
23. "We cannot afford to make either our corporation laws or the regulations governing the issue and sale of securities so strict that the raising of capital for new concerns in established lines of industry, or for con-

cerns in new lines of industry, is rendered impossible, or is seriously hampered." Do you agree?

24. "Newly organized corporations should be required to raise the capital necessary for making the enterprise a going concern without offering the securities to the general public; or if offered to the general public, subscriptions should not be taken for less than a minimum, say, of $1,000, in order to insure that only people of some means and some ability in judging values shall risk their funds in the enterprise." Do you agree?

REFERENCES FOR FURTHER READING

Cowan, L. L.: *Manual of Securities' Laws of the United States* (Supplement, 1925).

O'Brien, A. H.: *Report on Blue-Sky Legislation*, Toronto, Canada, 1922.

Reed, R. R., and Washburn, L. H.: *Blue Sky Laws*, 1924.

CHAPTER XIII

THE MARKETING OF HIGH-GRADE SECURITIES

The marketing of high-grade securities, such as those enumerated in Classes A and B under the Illinois Securities Act,[1] is largely effected nowadays through the intermediation of financial houses called "investment banking institutions." At the present time the principal sources of demand for investment funds are: first, the raising of capital for business enterprises; second, the needs of governments, national, state, and local; and third, the purchase and improvement of real estate. All these sources of demand have increased tremendously in the last half-century; and it is this fact, together with the development of the corporate form of organization, that has forced the development of the elaborate investment banking machinery of the present day.

The securities that are marketed by these financial institutions include the issues of railroad, public utility, industrial, and other corporations, and of federal, state, city, county, township, and other local government bodies. Real estate issues are usually not marketed through the regular investment channels.[2] The types of securities handled now comprise stocks, bonds, and short-term notes; although until recently bonds have occupied a dominant position in the investment market. Some houses specialize in the marketing of bonds; some are mainly concerned with issues of high-grade stock, common as well as preferred; while others handle both bonds and stock. In general the drift appears to be away from narrow specialization, with the empha-

[1] See classification on pp. 190–91 above.

[2] For a discussion of the marketing of real estate bonds and mortgages see chap. xxvii.

sis, however, always upon conservative, as distinguished from speculative, securities.

I. HISTORY OF INVESTMENT BANKING

The investment banking institutions, with their various functions of investigation, underwriting, and marketing securities, are of comparatively recent development, their history running parallel with that of the corporate form of industry, outlined in chapter xi. Investment financiers, however, have existed for many centuries. In medieval times kings and governments received their revenues, as now, largely from taxes. Since the need for funds was practically continuous, while the taxes were received only intermittently, there developed the practice of securing "advances" from powerful financiers, to whom the collecting of the taxes was "farmed out" as security for the loan. The financial needs of the various European rulers were at times so great that the financiers to whom they looked for aid came practically to dominate the political as well as the financial life of Europe. Where the "tax security" was insufficient, valuable property was sometimes mortgaged to the financiers. For instance, in 1487 Jacob Fugger, having grown tremendously wealthy through operations in trading, mining, and banking, received the rich mines of the Tyrol as a guaranty for the payment of a loan to Duke Sigismund. This was followed by large loans to Sigismund's successor, Maximilian, and to Pope Julius II; while after the death of Maximilian, Charles V succeeded in becoming Roman emperor by the purchase of electors on funds borrowed from "the Fuggers." By 1524 the Fuggers had assumed control of a large part of the Spanish land taxes and mines; they had establishments in Poland, Hungary, Antwerp, and Naples; and their operations and power extended from Belgium to India.

Before the Civil War there was little investment banking in the United States.—From Colonial days until the Civil War period, in our own history, most businesses were conducted on the individual or partnership basis, with the funds furnished

directly by those immediately interested in the enterprises. During this period the financial dealings of governments were also relatively unimportant, except in times of war. The Revolutionary War was financed largely by the issue of paper currency; and the War of 1812 did not involve any extensive bond-selling campaign. Not until the Civil War did the issue of securities by the federal government become important. Even then the government securities were largely sold direct to banking institutions and individuals of means, rather than to a "general investing public"; hence the market mechanism involved was relatively simple.

In these early days the demands for large aggregations of capital came principally in connection with the development of public highways, rivers, canals, railroads, banking, and insurance. The financing of public works and railroads was effected partly through loans from banking institutions—often directly affiliated with the enterprise—and partly by the issue and sale of securities to the investing public. The funds were generally obtained for these early corporations from local investors, principally of the merchant class, "ranging from the small country storekeeper to the wealthy metropolitan merchant importer; there were others, however, as well: retired farmers or merchants; widows of substance; children who had inherited well; landed proprietors who had picked up public securities; successful speculators in stocks; and a considerable body of small savers in town and country."[3]

In numerous cases funds were also secured from outside the locality—principally in financial centers such as New York, Boston, and Philadelphia, and in foreign countries. Before 1800, state subscriptions were important elements only in the larger Virginia canals and the early New York canals, and in the Bank of North America, the United States Bank, the Union Bank of Boston, and the Bank of Pennsylvania. Occasionally towns took

[3] Davis, *Essays in Early History of American Corporations*, IV, 279–302.

a stake in bridge or canal companies, but rarely, if ever, to any large extent.[4] In the twenties and thirties state assistance played a leading rôle in the development of public works.

From the beginning some capital has also been drawn from abroad. In the Colonial period a considerable volume of funds was annually brought in by immigrants, and there were some loans to this country by European capitalists. It was not until after 1825, however, that European purchases of American securities became important. In that year nine issues of government bonds and a number of state and city bonds were quoted on the London Stock Exchange. In the construction era of the thirties, a large volume of foreign capital sought investment in this country, the total being estimated in 1839 at $200,000,000. The railroad developments of the forties and fifties induced additional foreign investments, the first railway loan floated in London being a $2,000,000 issue of the Baltimore and Ohio road, brought out by Baring Brothers in 1846. The Civil War halted developments; but in 1866 the total of British and French capital in this country was estimated at $350,000,000, while by 1869 it had increased to a billion. In that year David A. Wells estimated the total of all foreign investments in the United States at $1,465,000,000; while in 1910 Sir George Paish placed the amount at $6,500,000,000. Since the world-war, however, the United States has ceased to borrow abroad and has become instead a lending nation.

II. MODERN INVESTMENT BANKING DEVELOPMENTS

In the period before the Civil War, the domestic investment market was a very simple affair. The bulk of the investments were made directly—without the intermediation of any significant banking machinery. Local banks, it is true, often assisted in bringing borrower and lender together and mortgage companies were developing for the purpose of facilitating the making of

[4] *Ibid.*

agricultural loans. But it was not until after the Civil War period that investment banking institutions assumed an important position in our financial system. Indeed, it was not until the turn of the century that investment banking really came into its own.

The investment banking business as we know it, appears to have originated in connection with the issues of municipal subdivisions—cities, counties, townships, etc. In the early days of this investment business, municipal bond issues were disposed of almost entirely in the local community through the aid of commercial banks, who engaged in the bond business as a side issue to their regular banking operations. But as the issues increased in volume, the local banker was forced to seek outside sources of funds. He was handicapped in his operations, however, because securities were floated only periodically and his bond-selling was therefore but an intermittent activity. Specialization in investments, with a large variety of offerings, and a regular clientèle were necessary to an effective organization of the business.

It was the custom in the early days for municipalities to sell their bonds privately and without public advertisement. Accordingly, as the business grew and as energetic specialists entered the field of investment, buyers were sent about the country to locate new issues and effect as advantageous a purchase as possible. Finally, as the numbers of buyers increased and competition became keener, the practice of advertising bond issues at public sale developed, with the result that several buyers would appear at each sale and make competitive bids for the privilege of disposing of the issue. This practice greatly improved the market for securities and placed the business upon a much more efficient and economical basis.

In a similar way the distribution end of the business was broadened. So long as investors were relatively few in number and composed mainly of well-to-do business men, insurance companies, and savings banks, bond dealers usually found it possible to distribute the larger portion of their bond issues

directly over the counter, and the remainder by correspondence. But as the volume of securities offered for sale increased, it became necessary to extend the field of distribution, and salesmen were employed to secure new customers, both locally and in other communities, as well as to keep closely in touch with the existing clientèle.

There are now many specialized investment banks.—With the development of large-scale corporate industry and the extension of the investment banking field to include railroad, public utility, and industrial securities of every description, there developed specialized investment institutions. Some bond houses devote themselves almost exclusively to the marketing of municipal securities; others specialize in the financing of steam railroads; still others are concerned only with public-utility financing—and there is specialization even within this field, for instance, in the securities of gas or electric-light companies, power corporations, or street railways. In recent years, certain houses are specializing in industrial securities.

It is not to be understood that such specialization means an exclusive dealing in a particular type of security. An investment house specializing in railroad securities may also buy and sell or trade other securities to a limited extent, for the convenience of its regular customers. Houses do this, however, in the capacity of brokers, or as a result of an exchange of securities with other houses, rather than in the capacity of financial adviser and underwriter for the issuing corporations.

There are houses, also, which sometimes combine the work of engineering and operating establishments with the function of financing.

Though such organizations are not numerous, they are important. By reason of special skill and ability in their chosen fields they have effected economies in operation and construction. They purchase plants which have not proved profitable under the existing management and through their special skill turn them into profitable enterprises. Through the magnitude of their operations they can also effect economies in the purchase of supplies. Such engineering-banking organizations specialize in

the field of public utilities more than do bankers who are not also engineers. A house of engineering bankers confines itself to gas plants or to electric-light properties or to street railways.[5]

With the exception of a few lines of business, notably banking, and of relatively small corporations, the issues of which are sold directly to members of a family or to a small group of "inside stockholders," most corporations seek the aid of investment bankers in raising capital. An interesting development of recent years, however, has been the raising of capital through the direct sale of stock by the corporation to the consumers of its product and to the workers in its employ. This is particularly important in the field of public utilities. The American Telephone and Telegraph Company, for example, has organized a Bell Telephone Securities Company for the express purpose of raising its own capital from among its own constituency. In 1924, three telephone companies associated with the American Telephone and Telegraph Company numbered among their shareholders nearly 11,000 clerks, holding an average of about four shares each; over 11,000 telephone employees, with average holdings of slightly less than three shares each; nearly 20,000 housewives, six shares each; over 4,300 executives with slightly less than ten shares each; and 1,247 bankers and brokers, with an average ownership of a fraction less than eighteen shares.

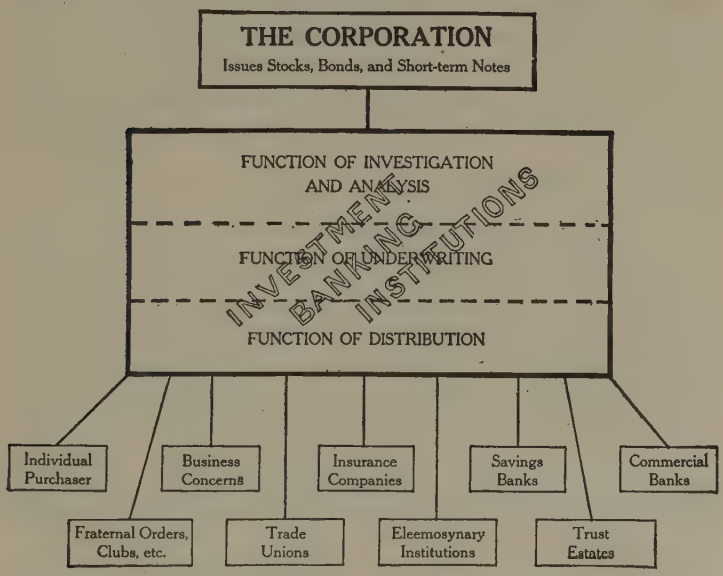
For some lines of industry adequate investment banking machinery has not as yet been developed.—Municipal, railroad, public-utility, and the larger industrial enterprises have little difficulty in securing capital through investment bankers. But in the case of the smaller industrial concerns, the machinery, though rapidly improving, is still inadequate. The cost of investigation and of advertising, in order to make a little-known enterprise sufficiently popular to attract investors, is often disproportionate to the amount of capital required. The banker would thus have to charge so much for his services that it would impose a very heavy burden upon the business. This is one of the reasons why the smaller industrial concerns have had to raise

[5] Lyon, *Corporation Finance,* II, 40.

their funds through promotion schemes, as outlined in the previous chapter.

III. FUNCTIONS OF INVESTMENT BANKING INSTITUTIONS

The terminology that is commonly employed in speaking of the work of investment banking institutions is somewhat confusing. Some writers speak of houses of first purchase, of under-



writers, and of distributing bond houses in a way that would lead one to believe that they are distinct and specialized institutions each performing a particular task and that only. If a clear view of the work of investment banks is to be gained, it will be necessary to make a classification that runs in terms of functions rather than in terms of institutions. The diagram on this page attempts to set forth the several functions that are performed by investment banks.

In brief, the function of investigation and analysis is to

determine whether a proposed bond issue has sufficient merit to be offered to a conservative investing public. It is the function of underwriting to assume the risks that inhere in the raising of the funds required and to insure the corporation that it shall have its funds on a specified date, whether or not the securities have been sold to the investing public. It is the function of distribution to sell an issue of securities to investors. All of these functions may be, and usually are, performed by a single institution, although there is some degree of specialization by investment bankers. Such concerns, for instance, as Morgan and Company, are chiefly interested in original investigation and in underwriting, while, on the other hand, there are many small bond houses whose activities are mainly confined to the retail marketing of securities.

IV. INVESTIGATION AND ANALYSIS

The original investigation and analysis of an issue of securities may be undertaken by any investment banker, large or small. There are a great many relatively small issues of securities put out by medium-sized concerns that are handled by small and inconspicuous investment bankers. In the case of very large issues, however, there are a few great financial houses which now more or less occupy the field. As we shall presently see, this is mainly because the underwriting of such issues requires very large resources.

The problem of investigation and analysis arises whenever a corporation approaches an investment banker with a request for assistance in the marketing of an issue of securities. The task of the investigation is, first, to ascertain whether the proposed issue is sound, and second, to name a selling price that will be satisfactory to the corporation and at the same time enable the banker to make a profit on the transaction. It must be clearly understood that the investment banking institutions which we are now considering have nothing to do with speculative securities. They aim to establish a reputation for conservatism; they

make their appeal primarily on the basis of safety of the principal and certainty of the interest or dividends, and their greatest satisfaction is in achieving a long record of no financial losses to customers.

In the light of these ideals it is obviously necessary for the investment banking house to make a most careful investigation and analysis of the corporate securities which it handles. To this end:

> The investment banker avails himself of all possible information—that furnished by the engineer, the accountant, the banker and the successful business leader—and reduces it all in the crucible of his experience and training. The security which passes the acid test of this process may be regarded as possessing the merits to which the reputable investment banker certifies.[6]

The fixing of a price by the investment banker is sometimes easy and sometimes difficult. In the case of a corporation that has outstanding issues enjoying a broad and active market, the naming of a satisfactory purchase price is under ordinary circumstances not difficult. The existing market for an issue of this character is carefully studied, as well as the general bond-market situation at the time. A bid is then made at a figure sufficiently under current quotations for such securities to insure a reasonable profit to the investment banker. The fixing of a price on a new and untried issue, however, requires the most careful judgment. The best that can be done is to make comparisons with the current prices of issues of a similiar character. Since the investment market is often capricious, many losses are sustained by the investment banker.

The task of investigating and analyzing the numerous factors which govern the value of investment securities varies considerably with the different types of issuing bodies. In the case of governmental issues, the security depends primarily upon the adequacy of the taxing power possessed by the issuing government; but there is also involved a consideration of the legality of the issue. The analysis of public-utility securities involves the

[6] From an article published by A. H. Bickmore & Co.

question of franchise rights and of regulation by public-utility commissions, as well as the potential earning power of the public utility in question. Similarly, with railroad issues there must be considered the earning possibilities of the road, together with the regulations imposed both by the federal government and the various states through whose territory the railroad runs. With industrial securities, the analysis is largely concerned with the ascertainment of earnings, although in the case of monopolies the problem of governmental regulation is also a factor. With all classes of securities, the character and ability of the management is, of course, a matter of paramount importance.

The diagram on page 215 is designed to show the factors that enter into a determination of bond values. The author holds no brief for the detailed classification under each heading; many writers would doubtless arrange the items somewhat differently. It is believed, however, that the broad classification into legal, technical, psychological, and economic factors will assist the reader in understanding the nature of the analysis required.

How an investment banker analyzes a proposition.—The following analysis[7] of bond values indicates the technical and economic factors that must be weighed in the balance.

To the task of investment analysis should be brought an equipment that consists not merely of a knowledge of accounts; that is useful chiefly to open the gates of knowledge. As much information as possible should be gathered with respect to the nature of the business, its methods and possibilities of operation, and the relation of the enterprise to the remainder of the industrial or commercial community. It has been said that the newspaper man should be a Jack-of-all-trades. It might well be said that the dealer in securities should be a master of all trades. Through all the investment analysis should be applied the horse sense of a sound business experience, for financial miracles ceased with Aladdin and his lamp.

Investment analysis is concerned primarily with just three things, as follows: (*a*) profits; (*b*) the relation of assets to liabilities; and (*c*) physi-

[7] From an article in *Chicago Banker*, January 18, 1913, by H. S. Mott, manager of the bond department, Bankers Trust Company, New York.

cal property. Secondary factors are (*a*) the nature of the specific security offered; and (*b*) the conditions at present existing and likely to exist in the investment market. Under these five headings can be taken into account all the facts that make or unmake security investments. And out of the answers obtained by subjecting questions to facts and figures is constructed that projection of opinion—that prophetic vision—which constitutes the only real investment judgment.

I confess to an uncontrollable prejudice for a scrutiny of the income account as the first method of approach to the problem of bond values. When an enterprise makes real money for its shareholders, it also makes values in use for the physical property it owns. . . . . Physical values out of use, even temporarily, shrink to distressingly small proportions, as the records of the bankruptcy courts disclose.

Preliminary investigation should subordinate the other elements of safety to the question of earnings. Current earnings and expenses should be compared with similar items at least for the preceding year, but preferably with those of a number of years preceding. Gross earnings or gross sales of merchandise should be expected to show more or less steady increases, for the business, like the individual, that merely stands still goes backward.

If one company manufactures harvesting machines, another a standard, moderate-priced automobile, and another conducts a large mail-order business in the rural districts, will the demand for their goods be affected by large or small crops—the prosperity or the adversity of the farmers? If a network of trolleys is built in the territory of a railroad, will the road's passenger traffic be curtailed? If natural gas is discovered near a large city and shortly will be delivered to consumers at thirty cents a thousand feet, how will the company manufacturing gas for ninety cents a thousand feet to the consumer be affected? To what extent is the market for a company's product dependent upon tariff duties? Do the records of other similar cases guide opinion? Or is experience of little service? In any event before we make an investment, wisdom dictates that we form some solidly based opinion on these or other matters that may be pertinent. It is the future status of our securities that interests us.

But suppose, as is frequently the case, we find that the demand for a commodity is fairly stable or, better still, shows a well-marked tendency from year to year to expand, with a likelihood that the tendency will continue. It is not, after all, gross earnings that are applicable to dividends on stocks, or, for that matter, to interest on bonds; it is net income. If expenses increase as rapidly as gross earnings, the values of the securities involved stand still or, in the comparative appraisals of the market, decline. What do the expense accounts show? Does the cost of conducting the business increase more rapidly than do gross earnings or by a larger per-

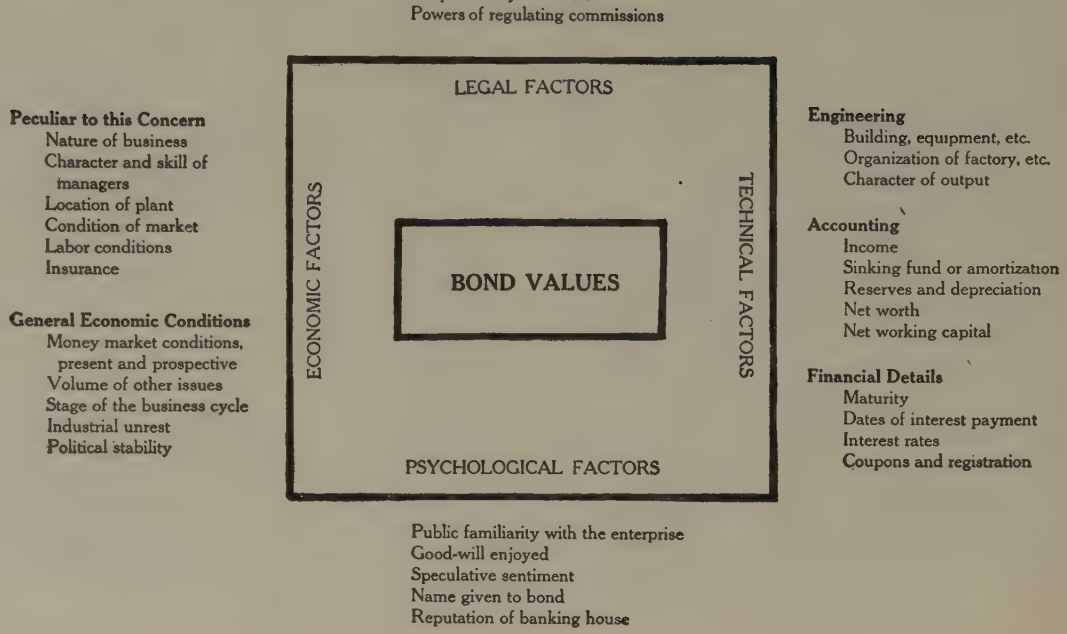
centage? If so, in what items and why? When these questions shall be adequately answered, we shall be in a position reasonably to determine whether the increase in expenses, if there be an increase, is due to avoidable or unavoidable causes, whether the increase is a fluctuation or discloses a tendency, and whether part or all of the increase in expenses, such as outlay for betterment and reconstruction, is likely to yield larger profits in the future.

The creation of reserve funds for depreciation, insurance, etc., and periodical charges to net earnings for their continuation and expansion according to the probable needs of the business, greatly enhance the investment values of securities. Property in use derives a large part of its value for a going concern and, therefore, for security holders by having worn-out parts constantly replaced and by being protected against unusual hazards. If, then, net earnings increase by a percentage as large as, or larger than, gross earnings, and if good judgment dictates that the conditions surrounding the volume of business done, the prices obtainable, and the expenses, are unlikely to change for the worse, the securities of such a corporation, other things being equal, should be desirable investments.

Assets and liabilities.—The financial status of an enterprise at the close of business on a particular day makes an exhibit with which bankers as lenders of money are familiar. As an exhibit of a company's ability to repay loans in a short time, it is of more service than the income account. For the purpose of investment analysis it is subordinate only to the income account. It is presumed to be an exact statement of all assets and all liabilities. Actually, in many cases, it is nothing of the sort. The property accounts among the assets sometimes contain items of intangible, as well as items of tangible, property. Good-will, franchises, patents, etc., when they are rated high as assets, produce water in securities purer than that to be brought to New York by the new Catskill aqueduct. Capital stock theoretically is fully paid and in a balance sheet is treated as money owed to stockholders. But actually it is often not fully paid, and, except as required through dissolution and liquidation, the amount it represents is never legally owed to anybody. The surplus of current assets over current liabilities, or, as surplus is called, "net quick assets," constitute the working capital of a concern. Its proportions in relation to the need for working capital are of the utmost importance. Many a soundly based enterprise has passed into control of the courts because its promoters failed to supply it with the sinews of war or its management paid out all profits in dividends.

In the balance sheet also should appear the accumulations of the various reserve funds which, to the extent that they are profits reserved against remote contingencies, may be considered as part of the surplus of profit and loss account. A profit and loss account, surplus itself, may mean

DETERMINATION OF BOND VALUES



much or little, according to the nature of the equities in assets that it represents. A profit and loss deficit never should appear except in the construction stages of an enterprise.

Among assets almost invariably the largest account is "cost of property." This account includes all fixed, or more or less permanent, assets needed in the conduct of the business, such as real estate, plants, machinery, equipment, etc. As it is against part or all of the physical property included in this account that mortgage bonds usually are issued, the make-up of the account obviously is important. In it might be included the original cost of a branch railroad that long had ceased to yield profits or to be kept in good repair, and of which the value in use of the physical property would be hard to discover. Or it might be found that a plant was adapted to profitable production only under circumstances of manufacture or of competition that have passed. Or worse than all, good-will may become the basis for the issuance of "mortgage" securities through the purchase of another going concern. The methods of arriving at "cost of property" through betterments, additions, depreciation, and reserve deserve careful consideration. These all have to do with the future status of the mortgaged fixed property. We should make some reasonable determination that its value in use in the future shall be as much as, if not actually more than, at present.

An analysis of public-utility values.—The following outline-analysis affords a general idea of the sort of investigation that must be made in appraising the value of public-utility securities.[8]

The data factors which should enter into the exercise of judgment involve balance sheets, statements of income and profit and loss, and statistics.

The balance sheet should set forth with appropriate detail the following items:

Assets	Liabilities
1. The permanent investment in operated property	1. Mortgage bonded or secured debt
2. The investment in non-operated property	2. Debenture notes
3. The investment in securities of, or advances to affiliated companies	3. Customers' deposits (in the case of gas companies)
4. The liquid assets (cash, receivables, materials, etc.)	4. Current liabilities (notes, accounts, dividends, salaries, and wages payable)
5. Deferred debit items	5. Reserves for depreciation and losses
6. The cost or valuation carried for franchise and good-will	6. Capital, surplus, and undivided profits owing to shareholders

[8] Adapted from an article by Homer A. Dunn in *Investment News*, March 24, 1917.

From such a balance sheet four things of importance to the investor may be readily determined, viz.:

1. The excess of the tangible assets over the liabilities.
2. The financial progress of the company as disclosed by the increase or decrease in such excess and its composition.
3. The cost or valuation of franchises or good-will.
4. The total capital (not capitalization) invested and employed in the business, which, as courts have ruled, is the difference between the total assets and the total liabilities, or the sum of the reserves and shareholders' accounts.

By such determination there would be afforded bases for establishing the ratio of net income to the capital tangibly invested and employed in the business.

In contemplating investment in mortgage, bonded, or secured debt or in debenture notes or similar obligations, the interest of the investor should center upon comparison of the ratio of net income-producing power to the capital tangibly invested and employed in the business. If investment in the common capital stock should be under consideration, the ratio of the net income-producing power to the total capital invested and employed in the business would be the effective comparison.

In analyzing the *income account,* a classification of operating revenues and operating expenses is necessary. But the classification will vary with the nature of the public utility in question. The items could not be the same for an electric utility, a gas utility, and a traction utility. A summary of the *operating revenues* of an electric utility, for example, might well cover (1) commercial lighting and power; (2) municipal lighting and power; (3) sales of current to other utilities; (4) profit on wiring and installation; (5) profit on sales of merchandise; (6) miscellaneous operating revenue.

Again using an electric utility as an example, such a summary of the *operating expenses* might well cover (1) generation and storage operation; (2) transmission and distribution operation; (3) utilization expenses; (4) commercial expenses; (5) repairs of generation and storage structures; (6) repairs of generation and storage equipment; (7) repairs of transmission and distribution systems; (8) depreciation of generation and storage structures; (9) depreciation of generation and storage equipment; (10) depreciation of transmission and distribution structures; (11) depreciation of transmission and distribution equipment; (12) general expenses; (13) administration expenses.

The income derived from sources other than operating activities should be disclosed in such items as (1) rentals from non-operated property; (2) interest earned on investments in mortgage, bonded, and secured debt; (3) dividends declared on investments in capital stock of other companies; (4) interest earned on bank balances and notes and accounts

receivable; (5) cash discount earned on purchases; (6) unclaimed salaries and wages written off.

Income charges.—The income charges should consist of such items as (1) interest on mortgage, bonded, and secured debt; (2) interest on debenture notes or similar obligations; (3) interest on current liabilities; (4) rent of property used in operations; (5) excise and franchise taxes; (6) income tax (property taxes being included in general expenses).

The illustrations above serve only to reveal the nature of the investment banker's task of investigation and analysis; they do not supply the reader with the golden key to the treasure-houses of industry. It is enough for the present to note that the success of the investment banker will vary with the degree of his mastery of the legal, technical, psychological, and general economic factors which enter into the determination of investment values.

V. THE UNDERWRITING FUNCTION

The ability of a corporation to construct new plant and equipment or to extend the scope of its operations in any direction is dependent upon an available supply of funds. Since an issue of bonds or stock is subject to the conditions of a capricious market, the securities can sometimes be quickly sold to the investing public at a favorable price, while at other times it may require months or even years for them to be absorbed at almost any price. The function of underwriting has arisen as a means of protecting the borrowing corporation from the vagaries of the investment market—of insuring that it shall obtain possession of the funds required at the precise time that they are needed.

It is difficult to give a clear presentation of the function of underwriting for the reason that the term is often loosely used, having a different meaning for different people. It will make for clearness of understanding, however, if we keep always in mind the fact that whoever participates in underwriting agrees, if a slang expression may be pardoned, to "hold the bag" in case the securities are not sold to utimate investors. Sometimes a single institution may underwrite an entire issue; but in more cases a considerable number of houses unite for the purpose.

In the diagram on page 209, underwriting is placed in an intermediate position between investigation and analysis, and distribution. There is good reason for this, because in point of time the underwriting arrangement follows the investigation and analysis and precedes the distribution of securities.

A joint-account arrangement, or an underwriting syndicate, is formed whenever a house has in charge an issue that is larger than it can handle conveniently with its own resources. There are a number of investment banks in the larger cities of the country with resources sufficient to handle an issue of securities of $2,000,000 or $3,000,000. With issues in excess of this amount, however, there are only a few concerns equipped to handle them without assistance. In New York there are perhaps seven or eight, in Boston three or four, in Chicago and Philadelphia two or three each, that can handle issues in excess of $5,000,000.

The nature of the entire process of underwriting and marketing securities may best be revealed by some concrete illustrations involving the joint-account arrangement and the underwriting syndicate.

Under a joint-account arrangement several investment bankers "participate" in the underwriting.—Suppose, for instance, that company A has in charge an issue of securities which it cannot handle satisfactorily alone. It seeks the assistance of companies B, C, and D. Let us assume that the amount of the issue is ten million dollars and that company A takes four millions and the B, C, and D companies two millions each. Under this arrangement each banking house agrees to advance to the corporation on a stipulated date a sum of money proportionate to the extent of its participation. To be concrete, let us suppose that the A company had decided that the bonds could be marketed at $98 per share and that in view of the expenses incident to the marketing process, the corporation should receive $95 per share. The corporation would therefore receive $9,500,000, four-tenths of which would be underwritten by A

and two-tenths by B, C, and D, respectively. If the bonds were sold at $98, the gross profit to the four concerns for bringing out the issue and underwriting and distributing it would be $300,000, from which, of course, would have to be deducted the expenses incident to the business.

Let us suppose that the issue had been underwritten on January 1 and that the date fixed for payment of the funds to the corporation was April 1. If investors look upon the issue with favor at the price of $98, it may be that it can all be sold during the interval; but if the investors are not favorably disposed it may be that only a small portion—or, indeed, none of the issue—can be sold before April 1. In this event, the participating investment bankers must advance the balance to the corporation out of their own resources or with funds borrowed from commercial banks. Since their own resources are usually relatively small in proportion to the volume of securities which they are handling, it is generally necessary to borrow heavily, on the basis of promissory notes, backed by the securities that are being underwritten as collateral.

If the bond market continues to be apathetic with reference to this particular issue, the participants will either have to "carry the securities" on borrowed funds for a considerable period, sometimes several years, or offer them at a lower price to the public. The former alternative involves tying up funds for an indefinite time, with a loss of interest during the interval; the latter involves accepting a loss through selling at a price that will not cover the expenses that have been incurred.

Under this joint-account arrangement the houses concerned act both as underwriters and distributors. They divide the profits, or losses, in direct proportion to the participation, regardless of the number of shares each house may be able to sell. The joint-account is a species of partnership. It usually calls for an undivided, or unlimited, liability of the participants, though sometimes the agreement provides for a division of the liability. The securities are also handled as a "lump," under the manage-

ment of some member of the group of associated houses; even the borrowing from the banks is a joint affair.

The underwriting "syndicate" assumes the risks of marketing.—In the case of large issues, and oftentimes with small issues handled by a banking house or houses of limited resources, a syndicate is formed for the purpose both of distributing more widely the risks involved and of facilitating the sale of the securities. Such a syndicate may be formed by an individual house, or by a group of houses handling an issue of securities on joint-account, as described above.

To make the illustration as concrete as possible, let us assume that Lee Higginson and Company have investigated a proposition for an issue of $50,000,000 of 7 per cent bonds. Since the issue is larger than could be handled successfully by a single house, or even by a group of houses operating on joint-account, Lee Higginson and Company proceed to organize a syndicate to underwrite the issue. Lee Higginson and Company alone deal with the borrowing corporation, acting as an intermediary between the houses which participate in the underwriting and the corporation whose securities are being issued. The issue is their proposition and, as we shall see, they get a special return as a reward for bringing out the issue and for organizing and managing the syndicate.

In the case under consideration, suppose that Lee Higginson and Company have agreed to pay to the corporation $92 per bond, and that they have decided to offer the issue to the investing public at $96. Assume, also, that a commission of 1 per cent must be paid to those who assist in the selling of the securities.[9] This leaves a possible three-point difference for profits to the managers of the issue. If no underwriting syndicate were formed, this would all go to Lee Higginson and Company; but since this house has not sufficient resources to assume conven-

[9] If the investment market improves, the securities, of course, might be sold at more than $96; but if the market is dull they may have to be sold for less.

iently the risks involved in so large a venture, they forego the chance of securing all the profits—and of standing all the losses—and distribute the opportunity and the risk among a number of houses.

Let us now assume that the underwriters in the case cited agree to buy at $93 any bonds that are not taken by the public at $96, before the date set for advancing the funds to the corporation. Lee Higginson and Company are thus assured of a profit of $1 per $100 bond, less expenses for their services in connection with the original analysis and investigation and the organization and management of the underwriting syndicate. By virtue of their agreement with the underwriters they have contracted themselves out of any risk of loss, except as they also may participate in the underwriting process, as noted below.

It is often good business policy for a large house to organize an underwriting syndicate, even though it could assume the entire risks alone. By calling in a number of houses to participate in the underwriting it conserves some of its own resources and thereby is enabled to take on additional issues as opportunity offers—additional issues on which it will receive a return for its work as original investigator and as organizer and manager of a new syndicate.

If the sale is a success, the underwriters who have agreed to buy at $93 the bonds which are sold at $96 receive 2 per cent for the risk they have assumed—the distributors getting the other 1 per cent as noted above. If the sale is not a success, the underwriters must buy in the bonds at $93, and then either tie up capital indefinitely by holding the securities for a more favorable market, or accept a heavy loss by selling at a figure below their purchase price. If they elect to "carry" the securities it will be necessary for them to borrow most of the requisite funds from the commercial banks.

Many institutions participate in the underwriting.—In the case of an underwriting syndicate of the sort just described, the house of first purchase may also participate in the underwriting,

thus acting in a double capacity. Similarly, the participating underwriting houses may perform a double function, that of taking subscriptions for the sale of bonds and assuming the risks of underwriting. In the example above, an investment banker would receive one dollar per bond as a distributing agency, and two dollars as an underwriter. It is important to bear in mind, however, that the actual amounts received for any of the functions connected with the marketing of securities vary with different issues and at different periods of time.

Large investors in securities often participate in underwritings, in order to reap the advantage of a lower price in their purchase of securities. Insurance companies have also at times participated in such undertakings, but owing to alleged abuses the state of New York has now made it illegal for these institutions to engage in syndicate activities.

One of the things to be guarded against by the underwriting syndicate is the passage of an issue of securities into the hands of speculators before the expiration of the underwriting agreement. If purchased by speculators who have misjudged the potential demand, securities will often be thrown on the market at a loss. Such precipitate selling may serve greatly to depress the price, with resulting losses to the underwriters. In an endeavor to prevent the disposition of securities to speculators it is stipulated that when individuals participate in underwriting it must be for investment purposes only. A new issue of securities may, however, pass indirectly into the hands of speculators by way of the regular dealers. Every effort is made to prevent this and to restrict the sale to investment channels. In case an issue does not "go well," however, and the underwriters are forced to sustain their losses, the securities then pass in large blocks into the stock market, where for years they are the object of speculative activity. The economic consequences of this aspect of the problem will be considered in chapter xv.

Syndicates are always temporary organizations, being dissolved as soon as a particular transaction is completed. They

are being formed continuously, however, and a given house may at one time be a member of several syndicates. It is usually good business policy to form an underwriting syndicate, apart from the reason noted on page 222, for syndicate operations enable a wider distribution of risks. Invitations to participate in syndicate operations are usually reciprocal; and the risks are obviously more widely distributed if a house has underwritten a million dollars' worth of securities issued by five different companies than when it has underwritten a million of a single issue.[10]

VI. THE DISTRIBUTION FUNCTION

The volume of corporate securities has attained such enormous proportions in recent years that the distribution function has required the development of elaborate selling organizations. It has been estimated that the par value of the American bonds sold each year averages more than $2,000,000,000; while the high-grade stocks distributed by bond houses are now doubtless of equal amount. In 1914 there were about 1,000 large investment banking institutions in the United States and a large number of small retail dealers. This number has probably been substantially increased as a result of the impetus that was given to the investment business by the financial exigencies of war and reconstruction. Besides the large houses, which exercise at once the functions of investigation and analysis, underwriting, and distribution, there are many small dealers and brokers who assist in the retailing of securities.

The larger houses maintain offices in the leading financial centers, such as New York, Boston, and Chicago, and also in London. The American offices are all connected by private wires and it is not unusual for a single concern to dispose of $5,000,000 worth of bonds in a day. In order to accomplish such a feat it is necessary for the banking house to be in close communication with institutions, brokers, and groups of indi-

[10] For additional data on syndicate questions see chap. xxx.

viduals who can act quickly and buy in large quantities.[11] A considerable percentage of such sales would be to the smaller dealers and brokers, and much of the remainder to savings banks, and insurance and trust companies.

As already indicated, distribution relates to the selling end of the bond business, to the placing of securities in the hands of ultimate investors. To guard against confusion of thought it may again be stated that distribution is not a function which is specialized in exclusively by certain houses. All of the investment banks perform this as well as the other functions. For instance, when a single house brings out an issue of securities and underwrites it without assistance, it also markets the issue. Similarly, when a group of houses, operating on joint-account, together underwrite an issue, they also unite in the selling process. And when a syndicate has been organized, the various houses participate both in the underwriting and in the distribution of the issue; indeed, the participating houses are often spoken of as a "selling syndicate." In general it may be said, however, that the tendency is for only one house, or a small group of houses, to bring out an issue and organize the syndicate; for a considerable number of houses to participate in the underwriting; and for a very much larger number to take part in the selling campaign.

With any given issue, however, there may be a considerable number of houses which have not participated in the underwriting who do undertake to sell some of the securities. Among those assisting in the distribution, but usually not participating in the underwriting, are also local banks throughout the country, with bond departments, formally or informally organized, small securities' dealers, and brokers working for a small commission.

It should be noted, also, that a member of the syndicate is not necessarily obliged to sell the same amount of securities that it has underwritten. For instance, a house may agree to

[11] See list of these on p. 228.

underwrite $100,000 worth; but it may undertake to sell only $50,000. If the entire issue is successfully marketed, the house in question receives its underwriting profit on $100,000 and its distributing commission on $50,000. If the issue is not all sold, it must buy in its proportion of the unsold amount and assume the risks of marketing them at a loss. It would still receive its selling commission, however, on whatever amount it had individually succeeded in marketing. It will be observed that it is quite possible that any particular house may be able to sell all the securities for which it has subscribed, despite the fact that the entire issue is not sold.

All who participate in the distribution of securities, whether members of the syndicate or not, are entitled to a selling commission. The amount of this commission varies somewhat, depending upon the nature of the issue and the condition of the investment market. It varies, also, with the size of the subscription. The commission to brokers is usually very small, typically one-fourth of 1 per cent. The commissions given to local banks and dealers run typically from ½ to 1 per cent.

The distributors assume some of the risks.—In a sense the outside distributors, that is, those not members of the underwriting syndicate, also perform an underwriting function; for they are not permitted to return any securities for which they have subscribed. This rule applies to brokers, as well as to banks and dealers. Since the outside distributors buy at a fixed price, say one dollar less than the price to the public, they are taking a chance of not being able to market the securities at a profit. If the issue does not go well, they will have either to sell at a price below what they have paid for the securities, or to hold them for a rise. It will be noted, however, that while these small houses and brokers thus assume some of the risks involved, their risks as distributors are only in proportion to their purchases; they do not guarantee that the entire issue will be bought, as does the original underwriting syndicate. Another way of stating it is that the original underwriters assume the

risks first, and then distribute them, in whole or in part, as the case may be, to the distributing houses.

Not being members of the syndicate, these retail dealers, banks, and brokers are not debarred from selling below the syndicate price before the termination of the syndicate underwriting agreement, as is the case with the participants in the syndicate. The dealers and local banks seldom cut prices before the expiration of the underwriting agreement, through fear of incurring the ill will of the syndicate, and thereby lessening their chances of assisting in the distribution of future issues. The brokers, however, usually fear little of this compulsion; and to guard against their underselling and thereby increasing the risks of the underwriting syndicate, brokers' commissions are usually very small—one-fourth of 1 per cent. In other words, the price quoted them is one-fourth of a per cent below the regular price. They cannot, therefore, cut more than one-eighth of a per cent without wiping out the entire profit.

There is usually a public announcement of an offering of securities.—When an underwriting syndicate has been perfected and an issue of securities is ready for distribution, it is necessary to attract the attention of potential investors. This is customarily done by means of a public announcement, which formally calls attention to the amount of the issue, the terms, and the date by which subscriptions must be in. In many cases a great deal of general advertising has been quietly done before the public announcement is made; indeed, the securities may all have been subscribed for in advance, in which case the public announcement might be regarded as superfluous, except that it affords an opportunity to call attention to the significant fact that the bonds have already been disposed of, thereby adding to the prestige of the house or syndicate. It should be understood that a public announcement that an issue has been entirely disposed of means merely that the selling syndicate has sold the issue; many of the securities may not have yet reached the hands of ultimate investors.

The subscribers include, as already noted, the houses which have participated in the syndicate, other bond houses, dealers and brokers, and a number of closely associated financial institutions. One writer has listed the following among these associated institutions:

1. An insurance company and its directors, who, if rich men, will probably buy for their own account some portion of a bond issue that their company has taken.

2. A firm of bankers or a bank in a smaller city that supplies a local investment demand.

3. A European group or syndicate which acts as a secondary distributor or buys securities against which it issues its own debentures, as in the case of the Scotch trust companies and the investment associations of Holland.

4. Individual trustees or lawyers charged with the investment of large estates, who are generally willing to anticipate their requirements if anything especially choice is for sale.

5. Trust companies and their correlated banks, whose purchases may be either for the trust funds of the former or as an investment for the deposits of both.

6. Savings banks, which, taken as a class, are the largest institutional buyers of the classes of bonds to which they are restricted by the laws of the various states.

The list of the various subsidiary groups among which the distributor of bonds finds his best market might be extended almost indefinitely, but those described will give a reasonably clear idea of what may be called the headwaters of the investment stream that must be kept continually flowing into the bond market.[12]

Since each subscription is made in ignorance of the amount that is being subscribed for by other houses, an issue may be considerably over- or considerably undersubscribed. In the case of an oversubscription, allotments of bonds for distribution are made in such proportion as the total number of bonds to be issued bears to the total amount subscribed for. For instance, if an issue has been oversubscribed by 25 per cent, the number of bonds available would be to the number of bonds subscribed for as 100 to 125, or 4 to 5; hence if a house has subscribed for $100,000 of bonds it would be allotted $80,000 and the dis-

[12] Theodore H. Price, *The Outlook*, CVI (1914), 598.

tributor's commission would be paid on only $80,000. If, on the other hand, the issue is undersubscribed, the subscribing house receives its commission on the amount actually subscribed for. It will be recalled, however, that the receipt of the commission is contingent upon the ability of the house to sell the amount for which it has subscribed at a price above its purchase price.

The second part of the selling program is the more difficult —that of convincing individual investors by direct and personal appeal of the soundness and attractiveness of the issue in question. If the bond market is apathetic or crowded with issues—if, as the phrase goes, there are many undigested securities floating around—the selling of the entire issue may prove a very difficult and long-drawn-out affair. It involves the use of advertising literature sent through the mails, and to an ever increasing extent it requires expert salesmanship. In former days when the issues of securities were few and when the announcement of a new offering was always an event of importance, advertising literature made an effective appeal; but under present conditions, with a large number of bond houses and with thousands of different issues, the mails are to some extent losing their effectiveness. Much of this advertising literature is consigned to the waste-paper basket by the busy man of affairs without so much as a glance at the offer. Personal appeal through salesmen is increasingly necessary to bring results.

The following is a typical letter to regular clients and potential purchasers:

A REMARKABLE OFFERING

Insuring the Investor
Safety of Principal and Income of Practically 8 Per Cent

$500,000

HURLEY MACHINE COMPANY
(An Illinois Corporation)

7 Per Cent Cumulative Sinking Fund Preferred Stock

The Hurley Machine Company, established in Chicago eleven years ago, is the World's largest producer of electric washing devices, the "Thor

Electric Washing Machine," standing alone in its class as the most efficient in use and protected by valuable patent rights. The vacuum cleaner, also produced by this Company, has tremendous possibilities, as indicated by the sales the week before Christmas of more than 3,000 cleaners. The products manufactured are standard articles in universal and increasing demand for the home. They are so well constructed that expense for repairs is practically negligible.

Through this new capital the Company is provided with facilities to increase its output from 400 to 600 per cent over its 1917 sales and at a lower unit of cost of production. Each month of its existence the Company has shown an increase in business over the corresponding month of the previous year. The Hurley Company products are essential labor-saving devices, particularly necessary under existing conditions. They are a wartime as well as a peace necessity.

After making every provision for expenses, depreciation, federal income, and other taxes, the NET PROFITS for 1917 applicable to the Preferred Stock AVERAGED EVERY SIXTY DAYS MORE THAN SUFFICIENT TO PAY THE DIVIDEND FOR THE ENTIRE YEAR.

After allowing for dividends on the Preferred, the Common Stock during 1917 earned more than $15.50 per share, while the dividend rate of 6 per cent per annum is being paid quarterly, January, April, July and October 15, as for a number of years past.

The connection of Mr. Edward N. Hurley with the enterprise, originated by himself, and an exceptionally able board of directors should insure the continued success of the business.

PRICE

The Preferred Stock is offered at $100 per share and accrued dividend from January 1, 1918, carrying with it 15 per cent in Common Stock.

There is a firm bid of $75 per share for the Common Stock and we will pay this price for any of this stock which you may acquire, or we would be willing to purchase or sell any fractional share on the same basis.

Recommended without qualification by

JOHN BURNHAM AND COMPANY

January 26, 1918

(Company's descriptive folder, including balance sheet, certified by public accountant, accompanies the letter.)

VII. SUNDRY SERVICES OF INVESTMENT BANKERS

One of the chief problems of any bond house is that of building up a clientèle—a task which usually requires several years of activity in the cultivation of cordial relations based on serv-

ice. Investment bankers aim to make satisfied customers by selling only such securities as are safe and at the same time yield a satisfactory interest return. They also render a number of important incidental services to their clients.

The investment banker often becomes an adviser to his customers and assists them in selecting the best types of securities for their particular requirements. He also furnishes a great deal of general information on all matters pertaining to the investment business, and frequently offers a general investor's service, as distinguished from the special service rendered when a particular security is sold. Bond houses furnish reports to customers on any securities, municipal or corporate, which are of public record; and they answer questions about securities based upon information which the investment house has accumulated and which it believes to be reliable. Tabloid investment lessons are often printed in the columns of newspapers and periodicals, in pamphlets and monographs; and some houses even put out a daily news sheet containing items of interest to investors and suggestive discussions of investment problems.

While bond houses cannot guarantee the payment of principal and interest, they sometimes do assume customers' losses. "In some instances losses amounting to hundreds of thousands of dollars have been made good; in many instances the firms have volunteered to pay interest which has been suspended."[13] And in every case a reputable house assumes a moral responsibility of "seeing the clients through" default, reorganization, etc. It takes the lead at its own expense in upholding the mortgage rights and legal claims of the bondholders.

Bond houses assist in giving marketability to securities.—One of the most interesting developments in connection with the maintenance of the good will of customers is the practice of buying back securities from those to whom they have been sold, thus giving to the securities a ready marketability. While the practice cannot be said to be universal and while circumstances

[13] Chamberlain, *Principles of Bond Investment*, p. 522.

might alter the practice of any given house, it is nevertheless customary for conservative bond houses to agree to repurchase securities at the market price then obtaining, and sometimes at the price at which they originally sold. Some houses state, "We shall put our issues as nearly as possible on a plane of marketability with active listed securities. We make no promises, but, except in times of panic, when it may be impossible to raise money to satisfy everybody, we hope and expect to be so situated as to buy back at the fair market price the securities we have sold."

The investment banker also makes it a point to be able to supply his client with any security that he may desire to purchase. If the stock or bond required is one of which the house has been a distributor, it will endeavor to repurchase from customer B the securities required by customer A. If the securities sought by the customer have never been handled by this house, it is necessary for the banker to "pick them up" in the market. In order to repurchase securities once sold and to furnish its customers at any time with the securities required it is necessary for the banking house to have funds available for the purpose and to maintain a "trading position" in the investment market. Whenever a house wishes to buy or sell a few shares or bonds of a given issue it gets in touch with other houses which may have such securities on hand or may be able to get them from some of their customers.

There are also street brokers who make a small commission of $\frac{1}{16}$ or $\frac{1}{8}$ per cent as go-betweens in the buying and selling of such securities. In the case of an active issue it is of course always possible to buy and sell the securities desired on the stock exchange. But the commissions that must be paid the exchange brokers serve to make the purchase of securities on the exchange a last-resort measure; it is usually cheaper to make use of the street brokers.

Investment banks also act as financial advisers to corporations.—An investment bank not only finances a corporation in

its initial stages, at the time of its original organization; it serves the company continuously in connection with refunding and expansion operations. The banker becomes a financial adviser to his client. Additional securities need to be issued from time to time and the banker is in a position to recommend favorable periods for putting out such issues and also to advise as to the best type of security to issue under the existing circumstances. It is not to be understood from this, however, that the larger corporations depend entirely upon any one investment banker. There is competition among the bankers for business; and the wide-awake house studies carefully the financial needs of the various corporations, with a view to acquiring the business of those which have maturing obligations to be refunded or new issues to be sold for the provision of additional funds.

VIII. CAPITAL REQUIREMENTS AND PROFITS OF INVESTMENT BANKS

As compared with manufacturing or producing establishments the capital requirements of the investment banker are relatively small; they are small even as compared with those of the ordinary commercial or savings bank. Since the investment banker deals merely in credit instruments rather than in concrete material goods, a large plant is obviously unnecessary; and since the investing public is largely reached by salesmen and correspondence, the building and equipment are small as compared with those of commercial or savings institutions whose customers must frequent the bank. All that is needed is office space for those who are engaged in the legal, engineering, accounting, and economic analysis that is required and in the preparation of advertising literature.

As the foregoing description of the investment business has indicated, bond houses are, however, often required to invest their own funds in the securities which they are handling, particularly in connection with the function of underwriting. But the amount of their own capital that is required is not so great

as might be expected, for the reason that they are in a position to borrow heavily from the commercial banks, using securities as collateral for the loans. For instance, the underwriter can borrow from 50 to 90 per cent of the value of the securities in his possession, the percentage depending upon the character, particularly upon the marketability, of the securities.

The profits obtained by investment bankers have evoked much controversy.—There has been much discussion of the profits made by investment bankers and it has often been asserted that the returns in this field of enterprise are exorbitant. This view is in part attributable to a failure to appreciate that the "spread" between the price paid to the corporation and the price at which the securities are marketed represents gross rather than net profits; and in part it is due to the common practice of generalizing on the basis of a particular instance of handsome profits—forgetting the cases where profits were low and even where losses were actually sustained. The truth is that the risks and expenses involved vary widely with different securities and at different times, depending upon the character of the security and the state of the investment market. Accordingly the gross profit, represented by the margin between buying and selling prices, will vary markedly with different issues. The net profits also show extreme variations.

With all the experience and skill the merchant can bring to bear on his purchases, the conditions under which he works are so complex that he often cannot foresee the outcome. If the hoped-for per cent of profit is not made, the transaction may turn to the loss of many per cent, besides the cost of selling. If a dealer has not been shrewd enough to sell out in advance of falling prices, or does not gauge accurately the duration and rapidity of the decline, he may take heavy losses. Probably no investment banker went through the transition, from the period of rising security prices culminating in 1905 to the subsequent period of declining prices and the panic of 1907, without taking large losses. Bonds bought in the hope of selling at three-fourths of 1 per cent above the price were sold at a loss of from 4 to 5 per cent. Except in the case of specialty bonds sold through a careful education of the investor in the merits of the particular security, a sale in a declining market must be practically immediate in order to be really profitable. If a dealer misjudges the appetite of purchasers, he gets

"hung up" with an issue of securities which the investor will not even masticate, to say nothing of digesting.

A closing-up of the market, the refusal of investors to purchase, is a common, periodic phenomenon, which becomes particularly acute in London. It takes place whenever investors generally think the present is not a good time to buy. If an investment merchant fails to foresee its coming, he has to carry a heavy burden of securities that he cannot sell.[14]

Granted that underwriters assume large risks, that they may have to buy in the securities at the price stipulated and thus tie up their own capital for a considerable period of time, it is still pertinent to inquire whether on the whole they are not in a position to charge more than the risks and expense and the services performed warrant. The answer to this inquiry will obviously depend upon the extent of competition among underwriters.[15]

IX. THE REGULATION OF INVESTMENT BANKING

The investment banking business has developed as a private enterprise and has been subject only to such legal control as applies to any corporation, partnership, or individual business. That is to say, the law of agency, contracts, etc., relates to investment bankers precisely as to other business. But except where blue sky laws, as outlined in the previous chapter, contain provisions relating to securities dealers, there has been no governmental regulation and control of the investment banking business.

So far as the rank and file of the older bond houses are concerned there is probably little occasion for any regulation beyond what is provided by ordinary legal processes. The long-established and conservative bond houses are very much alive to the necessity of eliminating the fraudulent promoter and of safeguarding in every way their own reputation for probity and conservatism. But the number of investment banking institutions has been increasing so rapidly in recent years that there

[14] Lyon, *Corporation Finance,* II, pp. 58–59.

[15] See chap. xxx for a discussion of the so-called money trust.

is plenty of opportunity for the practice of fraud and for the selling of highly speculative securities by houses which trade on the reputation that has been built up by the older and more conservatively operated institutions.

There is need of additional control of investment banking.—"As the investment business is now organized," says Paul M. Warburg, formerly chairman of the Federal Reserve Board, "the writers of investment circulars may emphasize and omit what suits them best, and printed underneath their often meager and arbitrary announcement they insert a statement that the 'information is not guaranteed but is based on statements from what *they* consider to be reliable sources.' "[16]

Mr. Warburg suggests the appointment of a voluntary committee in each Federal Reserve district,

> which would be prepared to examine a prospectus before the securities are offered, and would certify that certain papers necessary to authenticate the facts have been filed . . . . that it is published over the signature and under the responsibility of the corporation or government issuing the securities, or of the investment house offering the same . . . . and that important facts have not been omitted. . . . . If a committee of this character were organized, the public could soon be warned that no security should be considered unless the prospectus or offering showed the certification number of the securities committee of the district.
>
> Unless something of this sort be done, it is only a question of time for some grave disappointments or scandals to occur, discrediting future issues and interfering with the free and healthy development of our security markets. If, on the other hand, the strong and reputable investment houses, of their own accord, subject themselves to whatever little delay and red tape may be necessary in dealing with their issues, they will, in the long run, best protect their own interests. Because in doing so they will help in keeping the crook out and preserve a clear field for those who are not afraid to have the searchlight turned upon the securities they are about to offer.

It will be seen that the argument for the regulation of investment banking is not that all investment banking houses require close supervision, but only that some of them do; and in

[16] From an address by Paul M. Warburg, delivered before the Bond Club of New York, May 23, 1919.

order to make sure that these shall be effectively regulated it is believed that all houses should gladly submit to regulation—either by a committee appointed by themselves or by some governmental agency. As has been the case with private commercial bankers in times gone by, there will be many efficient and time-tried investment bankers who will oppose such regulation as an unwarranted interference with private initiative and as entirely unnecessary in their particular cases. But, as has been the case with the commercial banks and other financial institutions, there will nevertheless be a gradual extension of the scope of investment banking regulation. And it should be welcomed by the conservative institutions; for the general plane upon which the investment banking business is conducted may thereby be substantially raised. All houses may well be compelled to meet at least certain minimum requirements which have been found to be indispensable to efficient investment banking.

X. INVESTMENT BANKS AND THE GENERAL ECONOMIC ORGANIZATION

We have thus far been discussing the nature of the operations engaged in and the services performed by investment banks, with only incidental reference to the social importance of such institutions. It remains to indicate the larger significance of investment banking houses, in relation to the general economic organization of the present time.

Investment bankers assist in directing the distribution of industrial energy.—In the first place, investment bankers play a dominant rôle in directing the flow of capital and labor between different industries and between different establishments in any given industry. As the economic system is now organized, business managers reach a tentative judgment that the development of a new industry or the construction of an additional plant within an existing industry will prove profitable. The proposal for an issue of securities as a means of raising the

necessary capital is then submitted to the investment banker for approval. Since the banker occupies a detached position and since he will suffer financial loss as well as a lessening of his reputation for sound and conservative judgment if his estimate of the proposition proves in error, he may be counted on to bring to bear in his investigation and analysis all the technical, legal, and accounting knowledge and economic prescience that can be mustered. There is thus every incentive to make the investigation as comprehensive and as penetrating as possible.

Every year a great many hopeful enterprises are denied funds by those who hold the purse strings. And while mistakes are often made, there is little question but that the veto power resting in the hands of the investment bankers prevents each year much dissipation of capital in fruitless ventures. It is, of course, always possible, in the event a given enterprise is turned down by the conservative investment banking houses, to float the securities without bankers' assistance, through the processes described in the preceding chapter. But despite this possibility, it remains true that the conservative bond house, by virtue of its strategic position in the investment market, is a dominating factor in the distribution of social energy. It will be noted that a banking house may deny an enterprise funds because the men who are back of it are lacking in integrity or business ability, as well as because the enterprise does not promise well from a business standpoint. The investment banking houses thus tend to insure both that the management of industries shall be in the hands of honest and able men, and that social energy shall be directed into the most profitable channels.

Under the conditions imposed by the gigantic scale on which industry is now conducted, control of the distribution of capital is a task of paramount importance. Because of the great quantity of fixed capital required, the waste of social energy entailed is enormous whenever an industry proves un-

profitable or a large enterprise in any given industry goes on the financial rocks.

Investment banking lessens the cost of producing goods.—In the second place, the investment banker relieves the borrowing corporation of a very difficult and expensive task, that of raising the funds required for its operations. It is conceivable that a corporation, however large, might take care of its own financing—that is, issue its own securities, send out advertising literature and salesmen, and await the inflow of funds from ultimate investors before beginning its business activities. Most corporations are, however, poorly equipped for the marketing of securities, and the costs involved would be much greater to them than to a regularly organized bond house. (But note exceptions, page 208.)

The advantages possessed by an institution that specializes in the raising of capital are obvious enough. First, it has a great deal of skill in advertising and salesmanship, which can be acquired only as a result of repeated experiences in such work. In the nature of things the acquisition of such skill is out of the question for a corporation, which has the task of raising capital only periodically, perhaps two or three times in a generation. It should be observed that, under these circumstances, it would not be feasible for a corporation to have a specialized "capital-raising department" as a permanent part of its organization. It must accordingly either use relatively unskilled officials for the task of raising capital or employ (at high cost) specialists whenever the necessity arises. Second, a bond house can do much of its advertising of any particular issue along with other issues, thus dividing the advertising expense involved. In addition to the disadvantages inherent in raising its own capital, the corporation usually finds that the task of organizing the business and making preparation for an effective utilization of the funds to be raised requires its full energy.

In the third place, and of even greater significance, the investment bankers make it possible for a corporation to enter

into contracts and to proceed with the development of its business in the light of definite knowledge, both as to the amount of the funds that will be received and as to the time at which they will be available. The investment market is capricious; securities may be sold quickly—possibly sooner than is necessary for the purposes of the corporation—and at a favorable rate; or it may be that years will be required for their final absorption by investors, and that the price at which they can be sold will be much below what the corporation had estimated. But the underwriters, as we have seen, guarantee to the corporation a definite amount of funds at a definite time. If a corporation did not know in advance what the total quantity of funds would be, it could not be certain, when making contracts incident to the development of the enterprise, that such contracts could be carried out. And if it did not know *when* its financial resources—whatever the total amount—would be available, it would have no assurance that its contracts could be fulfilled promptly or that production could be carried out according to schedule. Indeed, the risks involved here would be so great that many an enterprise partly launched would have either to curtail its operations or else completely wind up its affairs, owing, not to any fundamental weakness on the part of the enterprise, but only to the exigencies of the investment market. Such failures carry in their train a great waste of industrial resources.

What has been said above with reference to the advantages that investment banks confer upon corporations amounts merely to saying that the underwriting and distributing functions serve to reduce substantially the cost of raising capital required by modern large-scale enterprise. This reduction in the cost of capital-raising makes it possible for enterprises to produce more cheaply than would otherwise be the case and, where competition prevails, the result is a lower selling price for the commodities than would otherwise obtain.

Investment bankers are financial educators.—In the fourth

place, the investment banking institutions render a social service of inestimable value in educating the general public along financial lines. Were it not for the investment education that has been given to the American people by investment bankers, through conversations with clients, actual and prospective, through general advertising literature, and through folders and circulars which discuss investment principles, it is not improbable that the annual losses in this country from fraudulent and worthless investments would be many times their present staggering total.

QUESTIONS FOR DISCUSSION

I. THE DEVELOPMENT OF INVESTMENT BANKING

1. What were the chief sources of demand for capital in medieval times? How were these demands met?
2. When did investment banking have its origin in the United States? When was its period of greatest development?
3. Why did the development of investment banking institutions wait upon the growth of the corporate form of industry?
4. Can you suggest any handicaps to private enterprise before the development of investment banking houses? to government enterprise?
5. The first stage of railway development in the United States was carried out by government rather than by private enterprise. It has been suggested that this was because of the impossibility of raising the necessary capital without the aid of the government. Might the absence of investment banks in the early days have had some bearing on this?
6. In the light of your knowledge of our industrial development suggest the order in which the various types of specialized investment houses probably originated.
7. "The one big task of investment bankers is to bridge the gap between investors and borrowers—to raise funds from a multitude of individual and institutional investors and turn them over to corporations and governments who are in need of them." Into what secondary functions is this task divided?
8. Study the chart on page 209 and enumerate as many different groups of people, organizations, and institutions as you can that are interested in or dependent upon investments.
9. Consult an official of a local bond house or commercial bank and ascertain what functions his institution participates in.
10. Ascertain, by local inquiry, how many different types of securities are handled by a given investment institution.

11. Ascertain, by local inquiry, how the smaller corporations in the community have raised their capital.

II. INVESTIGATION AND ANALYSIS

12. Which of the various types of securities—government, railway, public utility, and industrial—do you think present the most difficult problems of analysis?
13. Study carefully the chart depicting the various aspects of the problem of bond values. Classify the different questions in the order of their difficulty of correct appraisal. Which do you regard of greatest importance?
14. What is meant by the "equity"? How much, if any, in excess of the amount of the bond issue should the equity of a company be? (Refer back to provisions affecting Class B under the Illinois Securities Law.)
15. "In analyzing an income account one must observe, particularly, the excess of the total net earnings above the amount of the interest on bonds; and in the case of stocks above the amount of the dividend payments." Why?
16. Enumerate as many factors as you can which might affect the "condition of the money market"? the general industrial situation?
17. Draw up in outline form what you think would be a necessary course of study for one who hoped to be a successful analyst of investment values.
18. What is meant by a house of original purchase or issue? May any house make an original purchase?
19. What sort of houses tend to specialize somewhat in investigation and first purchase?
20. The original purchasers are sometimes called wholesale concerns. Do you think this is a correct description of their activities? Do they have anything to say about the terms on which the retailing is to be effected?

III. THE UNDERWRITING FUNCTION

21. What is the practical necessity for underwriting? Is there a greater necessity with large than with small undertakings?
22. May a single house underwrite an entire issue?
23. What would determine whether a given issue would be handled by an individual house or on joint-account?
24. What is the difference between a joint-account and a syndicate operation? What would determine which would be used?
25. In the case of a joint-account do the associated houses merely underwrite the issue? Who sells it?
26. What factors would determine the choosing of houses for a joint-account participation?

27. When a syndicate is formed, is it merely for the purpose of underwriting an issue?
28. Show concretely how a house of original purchase may contract itself out of the risks of underwriting through the organization of a syndicate.
29. Is it fair for a house of original purchase to take, say, $1.00 per share for its work? Precisely what is the work for which it receives this $1.00 per share?
30. "The houses of first purchase do not assume any risks." Do you agree?
31. "It is usually good policy for a very large investment house to form an underwriting syndicate, even though its resources be sufficient to swing the entire amount, because it is safer to underwrite 5 per cent of twenty different issues totaling $100,000,000 than 100 per cent of a single $100,000,000 issue." If so, why?
32. Is it possible for a house to secure the profits incident to original purchase in a larger number of issues, if it does not tie up its full resources in underwriting a single issue?
33. Do you understand that an underwriting syndicate is a permanent organization?
34. Define: participation, subscription, allotment, "carrying securities."
35. Is it necessary for underwriters who participate in an issue that is brought out by a house or group of original purchasers to make an investigation of the enterprise?
36. Do the original purchasers also participate in the underwriting? Do you fancy that in practice every underwriting participant makes an independent analysis?

IV. THE DISTRIBUTION FUNCTION

37. Enumerate as many sources of demand for investment securities as possible. Which would be the most easily reached?
38. "A bond well purchased is half sold." What does this mean?
39. "The distributing houses do not assume any risks." Do you agree?
40. Work out the steps involved in an issue of one million dollars of bonds of Corporation X. Use actual figures and indicate the division of the profits as between original purchasers, underwriters, and distributors. Sell the same issue at a loss and indicate the distribution of the losses.
41. Does the typical letter to potential purchasers given on pages 229–30 furnish sufficient data for a reliable judgment?
42. What is the purpose of "buying back" securities? Of what advantage is it to the individual investor? Do you fancy many people would buy "unlisted securities" if it were not for the marketability given to them by the willingness of the bond houses to buy them back?
43. What is the function of the "street brokers"? Are they "profiteering"

middlemen, or do they render a service greater than the amount of the commissions?

44. Why cannot a bond house guarantee bonds? How can it usually assume the losses, in actual practice?
45. For what purpose does an investment bank need fixed capital? working capital?
46. In connection with which function is the largest amount of capital required?
47. What other financial institutions are necessary in order to enable the investment banker to engage in underwriting on a large scale?
48. Is it necessary for the houses of distribution to have connections with commercial banks?
49. What determines the amount of profit an investment bank can make: (*a*) as a distributor of securities; (*b*) as an underwriter; (*c*) as original purchaser?
50. "The investment banker must charge enough more than the expenses involved to compensate for the risks assumed and obtain a profit." Does this mean that the costs involved to the corporation in raising its capital are greater than they would be if raised directly by the corporation itself?
52. Write a summary of the social benefits of the investment banking business.
53. How do you account for the development of the investment banking business? Did society, in any organized capacity, have anything to do with it?
54. In the exercise of his veto power over the development of a given enterprise, is the investment banker actuated by considerations of social well-being? What is the test on which he bases his decision?
55. In a socialistic society how would the distribution of industrial energy between different industries be determined? between different establishments in a given industry? Can you suggest any possible shortcomings in this method?

REFERENCES FOR FURTHER READING

Annals of the American Academy of Political and Social Science, Vols. XXX and XLII.

Bulletins of the Investment Bankers' Association of America.

Chamberlain, Lawrence: *Principles of Bond Investment* (1911), chap. xl.

Gerstenberg, Charles W.: *Financial Organization and Management*, chaps. xx, xxi, and xxii.

Lincoln, Edmund E.: *Applied Business Finance*, chap. x.

Lough, William H.: *Business Finance* (1917), chaps. xiv and xv.

Lyon, Hastings: *Corporation Finance* (1916), chaps. ii and iii.

CHAPTER XIV

THE MARKETING OF FOREIGN SECURITIES

The marketing of investment securities as discussed in the preceding chapter related primarily to the placing of domestic issues in the American investment market, with only incidental reference to the marketing of securities abroad through the participation of foreign bankers in American syndicates. Foreign investments give rise to problems of peculiar difficulty. This is due in part to the risks and uncertainties involved in lending at great distances, and in part to the dangers of political entanglements. Under certain conditions, also, exchange difficulties greatly complicate the making of payments. In this chapter, we shall discuss the financial machinery that has been devised for marketing securities abroad and the reasons for its development.

I. INVESTMENT TRUSTS

As a means of reducing the risks involved in foreign investments and making them more attractive to purchasers, a new form of financial institution, called the "investment trust," has been developed in some of the European countries. This device for the handling of foreign securities has had its most extensive development in Great Britain. Great Britain has for so many years been the financial center and the great creditor nation of the world[1] that a brief statement of British overseas financial relations will best reveal the nature of the problem. In 1920 there were listed on the London Stock Exchange 1,156 foreign and colonial securities classified as follows: colonial and provincial government, 185; Indian and colonial city, 176; foreign city,

[1] The post-war importance of the United States as a lending nation is discussed below.

76; foreign government, 210; railways in British colonial possessions, 110; Indian railways, 68; American railroad securities, 56; foreign railways, 276. These foreign issues appear to be substantially in excess of the domestic securities traded in on the London exchange.

The distribution of British foreign investments in 1913 has been estimated as follows: railways, $7,402,014,631; governments, $4,669,518,679; mines, $1,327,527,668; financing land investments, $1,188,336,035; municipal, $718,037,475; commerce and industrial, $707,258,178; tramways, $378,505,035; banks, $345,811,648. Of the total, $8,662,345,667 were invested in India and the British colonies. The United States stood next with $3,672,343,630; with Argentina a good third at $1,555,-163,072. Nearly every country in the world was represented, in amounts varying from $30,000,000 in the case of Germany, to $718,000,000 in the case of Brazil. The grand total of British foreign investments was placed at $18,075,441,423, exclusive of a large amount of capital privately loaned abroad, estimated to equal about $1,400,000,000.

These vast investments afforded a highly profitable outlet for British savings, which could have been reinvested in Great Britain only under conditions of diminishing returns. They have also made possible the development of railroads and other enterprises in the United States, Argentina, Australia, etc., and have thus opened up for cultivation in all portions of the world vast tracts of rich agricultural lands that must otherwise have long remained unused. They have furnished the funds necessary for exploiting immense stores of minerals and raw materials, thus tremendously augmenting the producing power of the world.

The overseas investments of Great Britain, as already indicated, have largely been effected by means of the investment trust. The first trust in Great Britain was organized in 1863, but the period of most rapid development was in the decade 1883–93. At the present time there are several hundreds of these

institutions in Great Britain with assets of approximately $1,500,000,000. The investment trust is based on the law of averages; that is, on the principle that in a group of well-selected securities there will be only a few which will result in losses to investors. Hence if a large number of investors can get together, form an organization to make a thoroughgoing investigation of the corporations whose securities seem attractive for purchase, and with combined funds buy shares in a large number of companies, the risks of loss to any one individual will be greatly reduced.

Individuals may diversify their risks by direct investments in the capital of investment trusts, or they may purchase as outsiders the obligations of these trusts, secured by the investments that the trust has made. Each of these methods may be briefly considered.

Under the first method the shareholders, or partners, as the case may be, are part owners of all the trust's holdings and are thus entitled to pro rata participation in the aggregate earnings. The trust organization has thus made possible a co-operative investigation of foreign enterprises which reduces the costs of investigation and gives to each individual investor the benefit of the investment experience of the officials of the company.

Under the second method the securities purchased are held "in trust" by the company and replaced by its own obligations for the purpose of sale to individual investors. The individual thus purchases the obligation of a well-known domestic financial institution, rather than one of a relatively little-known foreign corporation. His security is in effect the combined earnings of all the companies whose issues are held by the trust, in addition to the resources of the trust itself.

The trusts are usually, though not always, organized on a corporate basis. The size of the trusts in England, as also in Scotland, Belgium, Switzerland, Holland, and Germany, is usually not very large. The largest in Great Britain, for instance, is the Mercantile Investment and General Trust Company, Lim-

ited, which on January 31, 1922, had outstanding £3,000,000 of debentures, £1,500,000 of 5 per cent preferred stock, and £1,500,000 of common stock. The earnings of these companies have been characteristically large, the average return on the capital of forty-five trusts for the decade 1910–20 being 7.9 per cent.[2]

The "trust" makes possible a very wide diversification of risks.—The nature of the diversification that is secured by these institutions may best be appreciated by actual reference to the capital holdings of some of the leading British trusts. The Investment Trust Corporation, Limited, of London, for example, shows in its statement for 1917 investments in 315 different securities; the Second Edinburgh Investment Trust, Limited, of Edinburgh, for the same year had 235, and the Metropolitan Trust Company, Limited of London, 220.[3] Nearly half of the investments of the Metropolitan Trust Company were railways and street railways. About a fifth were government issues, in which there had been a considerable gain due to subscriptions for the successive British war loans. The rest were in the bonds and shares of commercial and industrial concerns, electric-light plants, and other public works, and in the issues of other investment trusts.

No less interesting than their industrial diversification was their distribution by countries. More than a third were in the United States, although the Metropolitan Trust, like other foreign investors, had early in the war, sold back to this country many of our own securities. More than a fourth of the investments were at home (an abnormal war condition), but the remainder were spread out over the growing parts of the world, the countries represented in the order of the amount of funds they have attracted from this one investment trust being: the Argentine, British colonies and dependencies, Brazil, Mexico,

[2] B. D. Nash, *Investment Banking in England*, p. 94.

[3] *Foreign Financing under the Edge Act*, a pamphlet published by the Guaranty Trust Company of New York.

Central America, other South American countries, the Philippine Islands, Cuba, and other countries. The captain of this investment ship is now turning his eyes to the East and to Africa.[4]

It is of interest to note that certain of our American railroads have been largely owned in the past by these English trusts, while one American industrial company has been distinguished by having its securities in the boxes of twenty-one English trusts.

There are some trusts which specialize geographically, as in Russian, South American, or Oriental enterprises. And there are others which devote themselves entirely to the securities of a particular industry, endeavoring to reduce the risks not so much by extensive diversification as by intensive analysis of the status of the issuing concern.

II. THE MARKETING OF FOREIGN SECURITIES IN THE UNITED STATES

Throughout the nineteenth century, and in only lessened degree in the first decade of the twentieth century, the United States was a leading market for the capital of the Old World, the great development era in this country, requiring, as already noted, more funds than could be provided from local savings. But the Great War suddenly changed the financial balance of the world. The economic requirements of the war were such that it was necessary for France and England, particularly, to utilize past investments as a means of buying war supplies, and a considerable quantity of the holdings of American securities were resold to the United States. At the same time vast loans were extended by the United States to Europe during the war period, the total amounting to nearly $9,000,000,000 at the time of the Armistice. Some government loans were made after the Armistice, and for several years unpaid interest on a considerable part

[4] Adapted from "Introducing American Investors to the Investment Trust," *The World's Work*, July, 1919.

of the foreign debt has been added to the principal. On May 15, 1925, the total funded and unfunded foreign debt to the United States government stood at $12,151,238,393.39, of which amount $10,556,804,223.40 is principal, and $1,594,434,169.99 is accrued interest.

At the close of the war, it was the common view that the United States was certain to replace Great Britain as a capital market and that this country would in the future be the "banker of the world." It was pointed out that the tremendous drain upon European finances and economic resources had not only rendered it impossible for the old lending nations to make large foreign loans for some years, but that, on the contrary, many of these nations would have to borrow huge sums as a means of restoring the losses sustained during the war.

The six years that have elapsed since the war have witnessed great fluctuations in the volume of foreign financing.—In the post-war boom period of 1919–20, huge short-time credits were extended by banks and business houses, though few investment loans were floated. It should be understood that the government withdrew from the business of lending in 1919, leaving the field to private enterprise. In the depressed period of 1921–23 the amount of foreign loans floated in the United States was comparatively small—in fact, it was altogether insignificant in comparison with the exaggerated expectations of the "big talk" days of 1919–20. But in 1924, following the institution of the reconstruction programs of Austria, Hungary, and Germany, and the stabilization of currencies in some of the other nations of Europe, this country, through ordinary financial channels, again became a very heavy lender to Europe. At the same time loans to other parts of the world grew in importance. The table on page 251 shows the total of foreign-capital flotations in the United States in 1924, excluding short-term bankers' credits and direct investments in foreign industries. The figures represent net increases, since refunding operations have been eliminated.[5]

[5] *Commerce Reports,* January 26, 1925.

In addition to these loans, several hundred millions of short-time banking and commercial credits were extended. The proceeds of the loans were used by foreign nations in small part in acquiring gold, but in the main for the purchase of excess imports, that is, imports that could not be covered with the proceeds of export and service operations.

The agitation for and the authorization of a new type of financial institution modeled along the lines of the investment trust constitutes an interesting chapter in American finance. As

FOREIGN-CAPITAL FLOTATIONS IN THE UNITED STATES IN 1924

Countries	Governments	Corporations
Europe	$511,850,000	$ 15,920,000
Latin America	81,490,000	48,382,500
Canada and Newfoundland	89,440,894	32,550,000
Asia	98,500,000	15,500,000
Total	$781,280,894	$112,352,500
GRAND TOTAL	$893,633,394	

a preliminary to a consideration of the institutions authorized under the Edge law of December, 1919, it will be of interest to review very briefly our previous policy and situation with reference to foreign financing. Prior to the establishment of the Federal Reserve Banking System in 1913, most of our overseas business was financed by London banking houses. The Federal Reserve System made it possible, as will later be shown, for American banks to participate in the short-time financing of exports.[6]

In the belief that finance is an essential handmaiden to trade, the Federal Reserve Act also provided that any national bank, the capital and surplus of which was in excess of $1,000,-

[6] See chap. xix.

000, could, upon approval of the Federal Reserve Board, establish branches in foreign countries and dependencies. Relatively little was accomplished in this connection, however, for the risks involved appeared large, and our banks had abundant opportunity to utilize their funds in other ways, particularly after the outbreak of the European war.

This Act was amended on September 17, 1916, in order to permit national banks with a capital and surplus in excess of $1,000,000 to co-operate in the establishment or ownership of American banks or corporations, principally engaged in foreign banking, by authorizing the banks to invest in the capital stock of such institutions in amounts not to exceed 10 per cent of their capital and surplus. While some foreign financing institutions were organized under this law, it was felt that the movement would be greatly accelerated if such corporations were chartered by the federal government, foreign financing being regarded as a matter of *national* significance.

The next step in the development of overseas financing was the passage of the McLean Act on September 17, 1919, which permitted national banks, without regard to size, to invest up to 5 per cent of their capital and surplus in the stock of corporations of the kind contemplated by the Edge bill, then under consideration by Congress.

The Edge law of December, 1919, provides for the federal incorporation and regulation of banking institutions for the purpose of engaging in international or foreign banking or other foreign financial operations. A capital stock of at least $2,000,000 is required for incorporation.

The law provides for two different classes of operations. The first consists of commercial banking operations connected with foreign trade. These institutions are, however, not permitted to compete with existing banks in the field of domestic commerce. The second type of operation is investment in its nature and it is this only that concerns us in the present chapter.

The Edge Act permits the development of investment trusts.

—The law authorizes these banking institutions: (1) to purchase and sell, with or without their indorsement or guaranty, securities, including the obligations of the United States or any state thereof, but not including shares of stock, except as hereafter explained; (2) to issue debentures, bonds, and promissory notes under such general conditions as to security and under such limitations as the Federal Reserve Board may prescribe, but in no event having liabilities outstanding thereon at any one time exceeding ten times the capital stock and surplus of the issuing corporation; and (3) with the consent of the Federal Reserve Board

to purchase and hold stock or other certificates in any other corporation authorized under the Edge Act, or under the laws of any foreign country, colony, or dependency, or of any state, dependency or insular possession of the United States, where such corporation is not engaged in the general business of buying or selling goods, wares, merchandise or commodities in the United States and transacts only such business in the United States as in the judgment of the Federal Reserve Board is incidental to its international or foreign business.

The extent of such purchases without the approval of the Federal Reserve Board is limited to 10 per cent of its own capital and surplus, except when the investment is in the shares of a banking corporation, in which case 15 per cent is permissible.

The idea of these corporations is explained by Senator Edge, the author of the bill, in the following language:

The procedure under the prospective law is simplicity itself; it is merely the application to international trade of the accepted method by which Joe Doe sells his business to penniless Richard Roe and yet obtains actual cash payments in the transaction. The American exporter or manufacturer may sell his goods to an impoverished purchaser—a foreign government or a private concern. One of the proposed corporations then may accept collateral from the purchaser, acceptable to the Federal Reserve Board, and against this issue debentures to sell to investors, and the money so received will be paid to the American seller. Through the powers granted to these proposed corporations they may accept even mortgages on the plants or other real property of the purchasers. . . . . Thus a foreign concern in need of raw material may obtain it by giving a mortgage on its plant, and eventually by turning this raw material into finished product will be able to redeem its collateral and to put aside a little profit besides.

The principle underlying this law was applied during the war by the American Foreign Securities Company in making possible a purchase by the French government of $100,000,000 worth of supplies from American manufacturers.

On July 14, 1916, the American Foreign Securities Company was incorporated in Delaware by a group of American bankers, to acquire, by purchase or otherwise, and to hold or dispose of stock, bonds, or obligations of any foreign or domestic government or corporation. On July 18, 1916, the Company entered into a contract with the Government of the French Republic, whereby the Company made the French Republic a loan of one hundred million dollars, bearing interest from August 1, 1916, and payable July 31, 1919. . . . . The Company not only took the note of the French Government but also insisted that the French Government deposit collateral with the note. To secure the payment of principal and interest of the loan, the French Republic pledged various securities with the Company and authorized the Company to rehypothecate these securities. The value of these securities was calculated to be one hundred and twenty million dollars, and the French Government agreed to pledge from time to time additional securities so that the calculated value of the collateral should always be 20 per cent in excess of the principal of the loan. The collateral pledge included obligations of the Governments of Argentina, Sweden, Norway, Denmark, Switzerland, Holland, Uruguay, Egypt, Brazil, Spain, Province of Quebec, Suez Canal, and various United States and Canadian corporations. Under its authority to rehypothecate these securities, the Company deposited $126,526,534 worth of them with "a financial institution" in New York, as trustee, under a trust agreement to secure $94,500,000 of the Company's three-year 5 per cent gold notes, dated August 1, 1916, and payable August 1, 1919, which notes the Company publicly offered for general sale in July, 1916, at 98 and interest. Throughout the war these notes maintained a high value, and on August 1, 1919, they were paid in full. Meanwhile the Company paid dividends averaging more than 8 per cent per annum upon its $10,000,000 of capital stock.[7]

The movement for the establishment of investment trusts in the United States has been a failure.—A number of investment trusts were organized shortly after the war under state laws. Not a single investment trust has, however, as yet been organized under the Edge Act. The one great attempt was made in connection with the so-called Hundred Million Dollar Foreign

[7] Gilbert H. Montague, quoted in *Foreign Financing under the Edge Act*, pp. 11–12. New York, N.Y.: Guaranty Trust Co.

Trade Financing Corporation. In December, 1920, a number of national organizations of bankers and business men joined in launching a nation-wide campaign to organize a foreign-trade financing corporation with a capital stock of $100,000,000 having the power to issue debentures secured by foreign securities of ten times the capital, or $1,000,000,000. The funds derived from the sale of the capital stock and the debentures were to be invested in the stock and bonds of foreign corporations and foreign governments, mostly European, which in turn were expected to use the funds in the purchase of American goods. It was expected that the stimulation of American exports would check the fall in prices which was at that time causing huge losses in the United States. The stock was to be sold to manufacturers interested in exports, to banks interested in seeing the foreign trade of the country maintained, and to labor organizations interested in having unemployment reduced and good wages restored.

It proved impossible, however, to raise the capital. The benefits to be derived from the investments in case the plan went through appeared a bit nebulous and indirect to many of the groups counted upon to purchase stock, while, on the other hand, the risks of losing their capital in unsafe investments loomed large at the time. The world-wide decline in prices, the instability of the exchanges, the danger of political and social disorders, and the unsettled state of the reparation and international-debt problems combined to create general timidity with reference to the future of foreign investments. There was also some concern lest the funds of the corporation might be used to promote the interests of particular groups. At the same time some commercial banks feared that such a corporation would compete with their foreign-exchange departments, while some of the large investment banks saw a possible curtailment of their own opportunities in the field of foreign financing.

The extensive financing of 1924 has all been carried out by the established investment-banking institutions.—In the main,

the securities of the borrowing governments or corporations are sold directly to investors just as are those of domestic corporations. To some extent, however, a modification of the investment trust plan, involving the use of foreign "bond-trust certificates" is now being used.

Under this plan, investment houses deposit the securities of a number of foreign governments or corporations with a trust company as trustee. Against these securities they issue for sale to the American public bond-trust certificates which represent a pro rata interest in the bonds held by the trustee. The trustee not only holds the bonds but also collects the interest and distributes the proceeds to the holders of the trust certificates. This plan differs radically from the foreign-investment trust in two respects: first, the number of governments or corporations whose bonds are purchased is small—usually less than twenty; second, the composition of the bonds held by the trustee is not so easily changed as in the case of the holdings of the investment trust. This is due to the nature of the agreement between the trustee and the investment house.[8]

Another recent device for reducing risks is for the investment house which floats foreign securities to have an advisory board of leading banks and bankers in the countries whose industries are to be financed. These bankers act as partners in every business whose securities are offered for sale. This arrangement procures their expert advice on the condition of the industries in question, and it also insures a mutuality of financial interest with the American financial house.

In order to safeguard the sale of foreign securities in the United States, the New York Stock Exchange in February, 1925, laid down a special code of requirements for listing for-

[8] This principle is also used in connection with the so-called bankers' shares companies for the marketing of domestic securities. These companies purchase stocks of domestic corporations in some one industry, such as oil, chain stores, or railways, and sell their own shares to investors. The investments are thus diversified as to companies, but not as to industries.

eign-government securities on the exchange. The following information is requested in connection with every proposed listing:[9]

1. (*a*) Statement of debt, internal and external, and currency in which it is to be paid; statement of external debt to be computed in dollars; (*b*) contingent and actual liabilities, and priority; (*c*) revenue or assets pledged, if any, under present and other loans, and nature of administration; (*d*) summary of such revenue receipts and income from such assets for preceding five years, stated in dollars, if available; (*e*) status of the law under which said revenue or assets are pledged.

2. Past-debt record with respect to: (*a*) defaults; (*b*) scaling down interest payments; (*c*) suspending sinking-fund payments.

3. Where listed.

4. Currency in which interest and principal are to be paid.

5. Tax liability and exemption.

6. Statement of governmental income and expenditure for whatever account in the preceding five years.

7. Statement of the sums required in dollars to meet foreign-interest charges in each of the five preceding years.

8. Statement in terms of weight and dollars (converted) of merchandise imports and exports in each of the preceding five years.

9. Statement of covenants, if any, with respect to payment of principal and interest of bonds dependent upon state of peace or war and nationality of holder.

As already indicated, the great bulk of foreign investments recently placed in the United States has been handled through underwriting syndicates, as in the case of domestic flotations. The willingness of the American investor to invest in foreign securities and the power of the American market to absorb such issues is shown by the results of some of the large flotations of 1924. When the Japanese loan of $150,000,000 and the French

[9] For the listing requirements for domestic securities, see p. 264.

loan of $100,000,000 were placed, a syndicate comprising about 850 investment banks subscribed the entire amount in a single day. When the German loan of $110,000,000 was offered, the largest and strongest banking syndicate ever formed for anything but American government issues during the wartime was ready for instantaneous action. There were about 1,200 commercial and investment banks involved, and

from Wall Street, Boston, and Portland, Maine, down to San Diego, California, there was a bond selling organization going full blast. Their success was too good. Instead of receiving $110,000,000 of subscriptions, this record-sized group turned in about $500,000,000 of subscriptions, and it then fell upon J. P. Morgan and Co., to scale down allotments at the risk of losing friends.

The $50,000,000 Belgian loan was handled in record time. The agreement between the kingdom of Belgium and J. P. Morgan and Company, who brought out the issue, was reached shortly after 1:00 o'clock, P.M. By 4:00 o'clock of the same day, the description of the issue, its maturity, sinking-fund provisions, and price had been telegraphed to Morgan connections throughout the country; and by 5:00 o'clock, full arrangements for the sale of the securities had been completed. In the summer of 1925 the United States for the first time floated a loan for one of the British dominions, Australia borrowing $75,000,000 through a New York banking syndicate.

These cases illustrate not only the capacity of the American investment market to absorb foreign securities; they are quite as interesting as illustrations of the remarkable celerity with which modern investment-banking machinery functions in the raising of huge sums of money.

The enormous flotations of European securities in American markets at a time when the liquidation of war debts has scarcely begun raises a serious question as to the safety of many of these issues as investments. A considerable part of the borrowed "capital" is being used to purchase imports for consumption, and much of the remainder to replenish the money supplies

of countries whose liquid funds had previously been dissipated through the processes of inflation. Only a small part of the total has been used for the expansion of the productive capacity of Europe. The situation is thus fundamentally different from that existing in pre-war days when British loans provided the means for railroad and industrial development in new and growing countries. Discussion of these problems cannot, however, be undertaken at this place. We are here concerned only with the development of investment-banking machinery in the field of international finance.

QUESTIONS FOR DISCUSSION

1. How do you account for the pre-eminence of Great Britain in the field of foreign investment?
2. Indicate the economic consequences of British foreign investments to (*a*) Great Britain, (*b*) the countries in which the investments were placed.
3. State the essential principle of the investment trust.
4. Does the investment trust always sell its own obligations to an investing public?
5. What is the security of an individual who invests in foreign securities through the intermediation of an investment trust?
6. Enumerate the factors which led to a shift in America's financial position during the war from a debtor to a creditor nation.
7. State the important principles of the Edge law.
8. Describe concretely what security you would have in purchasing one of the bonds of an institution organized under the Edge law.
9. How do you account for the failure of the attempt to form investment trusts on a large scale in the United States?
10. What do you think of the bond-trust certificate plan as a substitute for the investment trust?
11. How do you account for the great increase in the flotation of foreign securities in the United States in 1924 and 1925?
12. Do you think such loans are adequately handled by the existing investment-banking institutions?
13. What is the purpose of the listing requirements of the New York Stock Exchange?
14. What special risks, if any, attach to foreign securities? Which would you regard as better, European government or corporation issues?

REFERENCES FOR FURTHER READING

Bass, John F., and Moulton, Harold G.: *America and the Balance Sheet of Europe,* chap. xix.

Lavington, Frederick: *The English Capital Market.*

Nash, Bradley D.: *Investment Banking in England.*

Owens, Richard N.: "The Hundred Million Dollar Foreign Trade Financing Corporation," *Journal of Political Economy,* June, 1922

Powell, E. T.: *The Mechanism of the City.*

Speaker, Lawrence M.: *The Investment Trust.*

CHAPTER XV

THE STOCK EXCHANGE AND CAPITAL RAISING

In the chart on page 165 showing the financial institutions associated with the raising of capital under modern conditions, the stock exchange was placed at one side and designated "the great central market place." The reason for this, as already indicated, is that the exchange is not usually a direct intermediary between the borrowing corporation and the lender of funds, its services being rather of an indirect nature. We shall find, however, that the stock exchange is of vital importance to practically all of the institutions that make up the financial structure of society.

In considering the importance of the stock exchange from the point of view of capital raising, it will not be pertinent to enter upon a discussion of the evils of speculation, manipulation, "wash sales," the ethics of future trading, the system of "puts and calls," etc. The purpose here is merely to reveal the part that the stock exchange actualy plays in connection with the process of capital raising.

I. HISTORY AND ORGANIZATION OF STOCK EXCHANGES

The rise of stock exchanges is directly associated with the development of the corporation as a capital-raising device. From the moment shares of stock were issued by corporations, trading in them by both investors and speculators began. "No sooner were there bits of paper to deal in than jobbers or brokers sprang up to handle them, and by natural gregarious processes these dealers gathered in one spot." The nature of the earliest stock speculation in England is described in the quotation from

Bagehot given on pages 173–75. Twenty years later there developed a great speculative mania, which culminated in the South Sea Bubble of 1717. In this early speculation jobbers and brokers first congregated on the rotunda of the Bank of England and at the Royal Exchange, which had been established for the purpose of exchanging abraised and clipped, foreign and domestic coins. Later, as the business expanded, neighboring streets and coffee houses were utilized, and Exchange Alley, Old Jonathan's Coffee House, Corn Hill, Lombard Street, and Sweeting's Alley became the centers of activity. When Old Jonathan's burned down in 1748, New Jonathan's, located in Threadneedle Street, succeeded it. By common consent of the brokers who traded there, New Jonathan's was converted in 1773 into The Stock Exchange, which was "wrote over the door."

The *New York Stock Exchange,* as at present organized, is the result of more than a century of evolution. The first organization of stock brokers in the metropolis dates from 1792, though it was not until 1817 that the organization assumed a very definite form. The rules and regulations governing its operations have been modified and extended from time to time tc meet the changing requirements of a rapidly expanding industrial and financial system.

The New York Stock Exchange is a voluntary association, limited to 1,100 members, of whom about 700 are active. Of the remainder, some are residents of other cities. Memberships on the Exchange have in recent years been sold for about $100,000 though a record of $122,000 was established in July, 1925. Numerous prominent capitalists hold memberships merely for the purpose of availing themselves of the reduced commission charges which the rules authorize between members. The Exchange as such does no business; it merely provides facilities to members, and regulates their conduct, insuring that all transactions are conducted in accordance with the highest standards of business integrity. The governing power is an elective committee of 40 members.

The patrons of the Exchange have been divided into the following groups:

1. Investors, who personally examine the facts relating to the value of securities or act on the advice of reputable and experienced financiers and pay in full for what they buy.

2. Manipulators, whose connection with corporations issuing or controlling particular securities enables them under certain circumstances to move the prices up or down, and who are thus in some degree protected from dangers encountered by other speculators.

3. Floor traders, who keenly study the markets and the general conditions of business and acquire early information concerning the changes which affect the value of securities. From their familiarity with the technique of dealings on the Exchange and ability to act in concert with others and thus manipulate values, they are supposed to have special advantages over other traders.

4. Outside operators having capital, experience, and knowledge of the general conditions of business. Testimony is clear as to the result which in the long run attends their operations. Commissions and interest charges constitute a factor always working against them. Since good luck and bad alternate in time, the gains only stimulate these men to larger ventures, and they persist in them until a serious or ruinous loss forces them out of the "Street."

5. Inexperienced persons, who act on interested advice, "tips," advertisements in newspapers, or circulars sent by mail, or "take flyers" in absolute ignorance and with blind confidence in their luck. Almost without exception they eventually lose.[1]

The "listing" of securities is a safeguard against fraud and irregularities.—Before securities can be traded in on the Exchange they must be listed by a committee of the Stock Exchange which passes on applications. The Hughes Committee

[1] Governor Hughes' Committee on Speculation in Securities and Commodities, "Report (1909)," *Money Trust Investigation,* pp. 2186–87.

on Speculation states the importance of listing in the following language:

> While the Exchange does not guarantee the character of any securities, or affirm that the statements filed by the promoters are true, it certifies that due diligency and caution have been used by experienced men in examining them. Admission to the list therefore establishes a presumption in favor of the soundness of the securities so admitted. And securities authorized to be bought and sold on the Exchange which have not been subjected to such scrutiny are said to be in the unlisted department, and traders who deal in them do so at their own risk.[2]

The Committee on Stock Lists lays down detailed requirements with reference to the engraving and printing of bonds and shares, the form in which these securities shall be made out, and the specific information that must be recited on the securities, the purpose being to prevent the counterfeiting of securities. The application for listing must be accompanied in the case of stocks by the following and other papers: copies of the charter of incorporations; by-laws; leases and special agreements; copy of resolutions of stockholders authorizing an issue; certificate of proper public authority for an issue; opinion of independent counsel as to legality of (*a*) organization, (*b*) authorization, (*c*) issue, (*d*) validity of the securities; detailed distribution of securities; certificate of registrar showing amount of securities registered; report of a qualified engineer covering actual physical condition of property; map of property; contemplated expansion; specimens of all securities to be listed. The requirements with reference to bonds are even more detailed, owing to the many different kinds of mortgage liens and the rights of bondholders thereunder. The cost of listing is $50 for each $1,000,000 or fraction of the par value of securities. With securities of no par value, it is $50 for each ten thousand shares.

A corporation whose shares are listed on the Exchange must agree to publish and submit an annual report to its stockholders at least fifteen days before its annual meeting, showing an income account and balance sheet of itself and of constituent and

[2] Governor Hughes's Committee on Speculation in Securities and Commodities, "Report (1909)," *Money Trust Investigation*, p. 2190.

subsidiary companies which it owns or controls. The report must also contain a statement of the physical condition of the corporate properties at the time.

The average annual sales of shares of stock on the New York Stock Exchange in the decade 1899–1909 was 196,500,000, at prices which involved an annual average turnover of $15,500,000,000. During this same decade bond transactions averaged about $800,000,000 a year. This is at the rate of about 650,000 shares of stock per day, of a par value of $100, and about 26,000 one-thousand-dollar bonds. During the great stock-market activity of the summer of 1919, as high as 2,000,000 shares were traded in a day, while for many weeks the daily sales never were less than 1,000,000 shares. The stock sales between November 4, 1924, and the inauguration of President Coolidge on March 4, 1925, were in excess of 160,000,000 shares, the largest of any similar period in the history of the Exchange. During that time there were 27 two-million-share days and 87 one-million-share days.

The *Consolidated Stock Exchange,* also located in New York, was organized in 1875 for trading in mining securities; but it altered its name, as well as its scope of business, in 1886. At the present time, by far the great part of the trading on the Consolidated Exchange is in securities that are listed upon the New York Stock Exchange. The Consolidated also deals in shares that are not listed on the larger exchange, as well as in certain mining securities that are excluded therefrom. The sales on the Consolidated Exchange average about 50,000,000 shares per annum.

The Consolidated Exchange has a membership of 1,527, about 450 of whom are active. Methods of conducting business here are very similar to those of the Stock Exchange. It is of note that strained relations have existed between the two exchanges since the lesser one undertook in 1886 to deal in other than mining shares. In cases where the Consolidated Exchange permits dealing in shares which are not listed on the Stock Ex-

change, as noted above, it prescribes a form of listing requirements. It appears, however, that securities are seldom listed before actual trading in them has begun. The unit of trading is ten shares as compared with the one-hundred-share lots traded in on the main exchange.

The *New York Curb*, or outside market, really antedates the New York Stock Exchange, the latter, indeed, having been an outgrowth of street trading in the eighteenth century. Long before the organization of the Stock Exchange in 1817 a group of brokers was accustomed to congregate daily around a tree in the old-time financial district of New York and there execute orders for customers. The incorporation of these brokers into a formal organization did away for a time with outside trading; but under varying conditions, and more or less continuously, there has been curb trading throughout the nineteenth century. It was not, however, until the great development in stock operations, brought about by the era of corporate development and financial consolidation beginning about 1898, that the Curb market became of real importance. Thereafter it afforded a public market place where persons could buy and sell securities not listed on any organized exchange.

The Curb market, until recently, was held in the open air and occupied a section of Broad Street, where an inclosure was made in the center of the street by means of a rope, within which the traders were supposed to confine themselves, leaving space on each side for traffic. During the period of active trading, however, the crowd often extended from curb to curb. In 1920, there were about 200 subscribers, of whom 150 appeared on the Curb each day.

So great eventually became the scope and activities of the Curb market that it was necessary to organize and house it. In 1921 it was moved into a magnificent building, constructed for the purpose, and organized as a full-grown exchange with ticker service and listing rules, and with floor trading restricted to members only. A small remnant of the old group, however,

remains in Broad Street as "an outside Curb." The securities listed on the inside Curb market at the close of 1924 consisted of 1,035 stocks, 119 domestic bonds, and 42 foreign bonds. The membership included 550 regular members and 505 associates. The price of seats on this exchange in 1924 ranged from $4,000 to $9,000.

The Curb constitutes an important part of our machinery for trading in securities. Although rigid listing requirements have been adopted, they apparently are not enforced, and many securities are traded in which are excluded from the larger exchange.

The services performed by the old Curb have been stated as follows:

> First, it is the market place for the issues of many of the industrial, mining, and miscellaneous enterprises that are constantly being created.
>
> Second, it provides a ready market for the securities of small concerns whose capitalization may be of relatively moderate size. With par values ranging from ten cents to twenty-five dollars, a satisfactory market for these securities would be impossible but for the existence of the Curb market, notwithstanding that these securities possess a merit in many cases as great as those listed on the regular exchange.
>
> Third, it affords facilities for holders of securities that are not listed on either board to get accurate quotations thereon and to market their holdings quickly when so desired. The Standard Oil stocks, which admittedly rank as high-class issues, are included in this group.[3]

The stock exchanges in the United States outside of New York are much smaller than the New York exchange and are chiefly of local importance. In most of them the securities traded in are those of local public utilities and industrials, although there is also considerable specialization by industries in some of these exchanges. Among the cities which have exchanges are Chicago, Philadelphia, Boston, Washington, Baltimore, Pittsburgh, St. Louis, Detroit, San Francisco, and Denver.

[3] From a pamphlet by Edward E. Epps & Co., Curb securities dealers. New York.

II. THE BROKERAGE BUSINESS

The purchase and sale of securities on the Stock Exchange is participated in by the members of the Exchange and their agents. While for many years the members acted only in the capacity of brokers, at the present time many of them are principals as well as agents, trading on their own account as well as for their customers. The following statement by a well-known New York brokerage house outlines the methods by which stock exchange operations are carried out:

1. *Purchasing outright.*—There are two methods of buying or selling stocks through members of the New York Stock Exchange, viz., buying or selling outright for cash, and buying or selling on margin.

When purchasing stocks *outright*, or what is commonly termed "for cash," a person pays the entire cost of the stock plus commission. It is customary to have them transferred to the name of the buyer, especially if the stock is one upon which dividends are paid, the same being paid to the party in whose name the certificate is made out. At times, however, the purchaser desires to leave the stock with the broker in order to facilitate its sale when desired, and the certificate is placed in an envelope marked as property of the owner to be delivered when called for. In this case the stock is often left in the broker's name and the customer is credited with the dividend when payable, or a check for that amount is forwarded to him. Thus the buyer receives the dividend but does not have the trouble of endorsing the certificate and sending it to the broker when he desires to sell. Non-dividend paying stocks when purchased outright are also often left in the original "street name," as a certificate endorsed by a stock exchange house is a good delivery at any time one may wish to sell and he has no trouble about endorsing, witnessing, etc.

2. *Purchasing on margin.*—When purchasing on margin, the broker buys the stock, paying for same in full, but loans the customer a certain amount, holding the certificates as collateral and charging interest on this debit balance. The difference between the amount loaned and the purchase price is deposited by the customer, being what is commonly termed "margin." The customer may at any time pay off this loan, together with any interest which may have accrued since the purchase, and take up the stock. Ten points, that is, $10 per share, is the usual amount required on a majority of stocks, and the broker will carry same as long as the market price is sufficient to protect him. This does not mean that he will carry the stock until a sale is made at the exact limit of the margin, however, as he might not be able to obtain that amount if he attempted to sell. For instance, if

United States Steel were purchased at 70 on a 10-point margin, the broker would call for additional margin when the market price was, say, approximately 65, and if no further additional margin was forthcoming after notification, he would hold same to within from one to two points of the limit or until whatever time he might deem it necessary to sell for his own protection. The commission which is charged must be figured out of the ten points, together with whatever interest may have accrued on the money loaned. Many figure that stock is held to the exact limit of the margin, but it must be remembered that while there might still be a margin of a fraction or even a point at the close of the day, the market might open off more than that the next morning and the broker be unable to close out the commitment except at a loss to himself. Many of the inactive stocks also have wide quotations, and sales might be one, two, or three, or more points apart, thus affording no opportunity to sell at the desired figure. The distance which a stock will be carried depends to a great extent upon the condition of the market and the character of the stock. Even active stocks which in ordinary times would be carried to within from one to two points of exhaustion could not be carried on such a small margin in panicky times when there is a chance that they might open off several points the following morning. A customer is, of course, always given every opportunity to deposit additional margin, which should always be done when it has been reduced to approximately five points, whether a margin call is received or not, it being assumed that a person either long or short of stock is sufficiently interested to keep track of market movements. There is no limit to the length of time stocks may be carried on margin as long as the amount of margin is sufficient to protect the broker.

We have endeavored to point out the features of marginal trading which ofttimes lead to discussion and annoyance to both broker and customer, but if a customer understands marginal requirements fully, it is often the most convenient and profitable manner of trading if conservatism is observed. For instance, one may believe that a certain stock is due for an advance and have only sufficient funds to purchase, say, 50 shares, but is enabled to take 100 shares by borrowing the difference from the broker. When the stock advances he may procure just double the profits he would have if the stock were purchased outright. He thus has a 50 per cent margin, which should be a very conservative amount on a stable stock and is in the same position as a man who purchases a house and secures a mortgage thereon.

We would require ten points ($10 per share) margin on a majority of stocks, but will accept five points on some low-priced issues having a ready market for purchase or sale, although even more than ten points is often necessary on some of the very high priced shares, or stocks which have a very wide market, that is, in cases where the bid and asked prices are far

apart and fluctuation apt to be abnormal. If only this minimum amount be provided for, one may obtain profits many times as great as if purchasing the stock outright, but we always endeavor to impress upon our customers the advantage of a heavier margin. The greater the number of points with which a customer fortifies his account, the greater is his protection against possible adverse market movements.

3. *Selling outright.*—In selling stock held outright in a customer's name, the customer must endorse the certificate, spelling the name exactly as it is spelled on the face and have same witnessed, but should fill in none of the other blank spaces on the back of the certificate. The commission for selling is the same as for buying, and in addition the seller pays taxes of 4 cents per every $100 par value, which is levied by the state of New York and the federal government.

4. *Selling margin stock.*—When selling stock is held on margin, the customer simply gives the order to the broker, who sells the stock, delivers the certificate, and credits the customer's account with the proceeds, less commission and state and federal taxes.

In selling stock short, the broker sells the stock, borrows it, and delivers same on regular delivery day. The margin required is the same as when purchasing stock, but is a protection against a rise in the market instead of a decline. If the market reacts, the customer may repurchase the stock at a lower figure, his profits being the difference between the sale price and the purchase price, and if the market advances and he buys in, or "covers," at a higher figure, his loss is also the difference between the sale price and the purchase price. This is simply the reverse of purchasing stock and then selling, the sale being made first and the purchase later. When the stock is covered, the broker returns same to the party from whom he originally borrowed it. No interest is charged a customer on the transaction, except when the stock is loaning at a premium because of a great scarcity; that is, when he is forced to pay a certain amount for the privilege of borrowing the stock. This, however, is a very rare occurrence.

5. *Deliveries.*—When stock is bought and sold, the certificate is not delivered until the following day, at which time the purchasing broker pays the selling broker the amount due. Stocks or bonds purchased on Friday or Saturday are not deliverable until Monday, as Saturday is a non-delivery day. It is necessary for the broker to receive from a customer at least a deposit against the purchase of the stock before the stock is bought, as he obligates himself to take the stock from the other broker on the regular delivery day, and if any unforeseen accident occurs to the customer overnight, preventing him from paying for the stocks, the broker would have to take it himself and stand any loss which might be incurred by a possible decline in the market price. When stock is sold, payment is not received until the next day, when it is delivered. It is necessary, how-

ever, for the broker to have the stock in his possession before selling, unless it is a short transaction.

6. *Stop loss orders.*—Stop loss orders are used by a great many traders to limit the amount of possible loss on any transaction, and ofttimes they save one from losing his entire margin. A stop loss order for the purchase or sale of a stock means that the purchase or sale, as the case may be, is to be made "at the market" when a certain price is reached. For instance, if United States steel is selling at 70, and an order is placed to sell one hundred shares at 68 stop, it means that when a sale of one hundred shares or more is made on the Stock Exchange at 68 or less, 100 shares are to be sold "at the market," that is, at the best price obtainable. At times, however, it might close above 68 one day and open below 68 the next morning, or even during the day might break from a price above to below 68 without a sale at that figure, in which case the stop loss order would be executed as soon as a sale was made under 68. Conversely, if an order is given to buy 100 shares at, say, 72 stop, it means that 100 shares are to be purchased "at the market" when a sale of 100 shares or more is made at 72 or higher.

7. *Interest.*—Interest is charged on any unpaid balances, the rate being governed by prevailing money rates, the size and activity of the account, the amount of margin maintained, and the character of the stock in question, having ranged from 3 per cent to 6 per cent during the past year.[4] We can, of course, make more favorable rates upon stocks which we can readily place in loans with a bank than on those upon which we cannot borrow money, and must, therefore, lie idle in our safe deposit vault.

Interest is credited the customer on daily balances of over $500 which are awaiting investment. Aside from the fact that we require a deposit on all orders many find it both convenient and profitable to leave their funds on deposit with us pending stock or bond transactions, inasmuch as they receive interest on daily balances, whereas at times they lose interest when they have to withdraw their funds from a savings bank, where interest is allowed only on money left until a certain date.

Commission rates vary with the price of the stock. The lowest charge is 7½ cents per share—on stocks selling below $10 a share. On stocks selling at $100 a share, or above, but under $200, the charge is 25 cents a share.[5]

Broker's organizations make it possible to speculate by wire.—A large part of the stock bought and sold in the Wall

[4] This was written in 1916.

[5] For the complete schedule, adopted in October, 1924, see *Commercial and Financial Chronicle*, November 1, 1924, p. 2018.

Street offices of brokerage firms is of course for the account of operators who live in New York. But in addition to this the large brokerage concerns have a remarkably extensive telegraph system whereby orders are gathered from far-distant points. The "wire map" of any one of a half-dozen or so of the large houses looks like a complete railroad guide of the United States. One particular firm reaches by private leased duplex wire from its main Wall Street office to such cities as Baltimore, Washington, Charlotte, Charleston, Atlanta, Savannah, Augusta, Jacksonville, New Orleans, Memphis, Chicago, Cleveland, Cincinnati, Omaha, Colorado Springs, Denver, Salt Lake City, Butte, Spokane, San Francisco, Pasadena, Los Angeles, Coronado Beach, and San Diego. It also has wire connections to Boston, Portland, Montreal, Toronto, Detroit, Gary, Indianapolis, Louisville, St. Louis, Kansas City, Milwaukee, St. Paul, and Winnipeg. This particular firm has six branches in the state of California alone. These wires may connect with branch offices or merely with correspondent firms.

The relative importance of this outside business may be judged from the following figures. On two successive days in the summer of 1919, 75,000 and 60,000 shares, respectively, were handled by branch offices; while 38,000 and 46,000 shares, respectively, were handled by the main office in New York.[6] The extent of this "outside" participation in New York Stock Exchange speculation is, of course, very much increased in times of active bull markets, such as prevailed in the late autumn of 1924.

Brokerage offices are storehouses of information.—These brokerage houses render a great deal of service both to speculators and investors. Through weekly market letters sent out to their customers, they furnish reliable information bearing on inactive and unlisted securities; they give the history of the corporation issuing particular securities, together with a survey

[6] Data taken from an article by Albert W. Atwood, *Saturday Evening Post*, June 21, 1919.

of the commodity markets and other pertinent facts as they relate to the values of the issues in question; they present general data on stock-market developments of the week; and they discuss (often with no little bias) the probable trend of the market in the light of general economic and financial conditions.

Some of the brokerage concerns which deal in highly speculative issues traded in on the Curb and the Consolidated Exchange have developed elaborate organizations. For instance, one of the large houses engaged in the marketing of "Curb, mining, oil, and industrial securities" has a large number of branch offices in various parts of the United States connected with the main office by a leased-wire system. It secures "wire" news relating to the industries in question from correspondents in the field, and it distributes a weekly market letter, containing from 7,000 to 10,000 words, to between 15,000 and 20,000 investors, actual and potential. It has also developed a report system, which, as a result of several years of accumulation, affords a fairly comprehensive record of mining history in this country. From these data special reports are made to interested clients on the history of mining corporations. One company avers that it is "prepared at a few hours' notice to furnish complete detailed reports on more than 750 mining securities"—reports which embrace corporate history, financial and physical statistics, details of mine development, including estimates of tonnage, progress of the work, and equipment. Upon written request it issues to interested clients special letters and special telegrams bearing on developments affecting the value of their holdings.

There is need of more adequate regulation of the brokerage business.—The opportunity for fraud is quite as great here as in the case of the sale of securities for investment purposes. The literature sent out by "fly-by-night" brokerage houses makes quite as interesting and instructive reading as that of the promoter of speculative and fraudulent companies, and the losses of the victims of such alluring literature are quite as stupendous as those of the dupes of promotion swindles. There are many brok-

erage houses which have been in existence for a generation, whose fraudulent dealings have eventually been made the basis for legal action and penalty.

Among the evils of the brokerage business must be noted the operations of the so-called bucket-shops. These are ostensibly brokerage offices; but securities are neither bought nor sold in pursuance of customers' orders, the transactions being closed by the payment of gains or losses as determined by price quotations. They are thus merely places for the registration of bets or wagers. The bucket-shop machinery, moreover, is generally controlled by the keeper, who is in a position to delay or manipulate the quotations at will. Despite the fact that bucket-shops are illegal and that their operators are punishable by fine and imprisonment, it has been very difficult to check their operations, particularly in periods of great speculative activity.

The New York Stock Exchange engages in constant war on bucket-shops and security swindlers. In 1914 it organized the original Committee on Quotations for the purpose of destroying bucket-shops. Since the bucket-shop operators pretend to deal in securities listed on the Exchange, they are dependent upon the use of stock tickers which report the prices at which sales are made. By restricting the use of tickers to bona fide brokers and members of the Exchange, the committee has put many bucket-shops out of business. In November, 1924, the Exchange organized a special department to co-operate with the government in eliminating security swindlers. This department is a clearing house for facts, all members of the Exchange being urged to report to the department any information regarding attempted frauds. The department transmits the information to the proper government officials, who bring action in the courts.

III. ECONOMIC FUNCTIONS OF THE STOCK EXCHANGE

The stock market makes possible investments for short periods.—The functions performed by the organized stock ex-

changes in connection with the raising of capital for corporations are numerous. In the first place, the fact that the exchange provides a market where shares and bonds can be readily disposed of induces a great deal of investment in securities that would otherwise not occur. Many individuals, business firms, and corporations have on hand funds that are temporarily not required, either because of seasonal variations in the volume of business or a general dulness of trade. By virtue of an organized market these funds may be invested in securities, with assurance that the securities can at any time be reconverted into cash at the market price then current. In the absence of the stock market these funds would either remain in idleness or be deposited in commercial or savings banks, where the interest return would be substantially lower.

It may be noted, in passing, that the operations of commercial and savings banks and insurance companies are to a large extent dependent upon the stock exchange. In providing a market for securities the exchange makes it possible for these institutions to accept the funds of customers, convert them into paying investments with the risks widely distributed, and yet remain in a position to pay depositors on demand or short notice and to meet insurance obligations with promptness and certainty. (The relation of the commercial bank to the stock market will be more fully discussed in chapter xviii.)

The stabilization of securities' values safeguards and promotes investment.—In the second place, the activities of speculators result in price quotations which reflect with a fair degree of accuracy the relative investment merits of different types of securities. Specialized financial experts devote their energies unceasingly to a scrutiny of values; "bulls and bears, bankers and brokers, speculators and investors, all over the world bid and offer against each other by cable and telegraph and record the epitomized result of their bidding in the prices current on the stock exchange."

While personal gain is the motive of these speculators, the

net result of their activities is to give general stability to stock-market prices and to reveal the relative investment values of the different issues. It is to be noted that the larger the number of operations and the greater the number of securities traded in on the various exchanges, the more accurate becomes the stock-exchange index of values.

The effect of this is also to stabilize the prices of securities in different markets. This is most clearly revealed in connection with international securities, such as the bonds of the principal governments and of large corporations, like the Pennsylvania Railroad and the General Electric Company of Germany. For bonds of this class

> the telegraph keeps prices at almost exactly the same level in all the stock exchanges of the world. If the price of one of them rises in New York or in Paris, in London or in Berlin, the mere news of the rise tends to cause a rise in other markets; and if for any other reason the rise is delayed, that particular class of bonds is likely soon to be offered for sale in the high-priced market under telegraphic orders from the other market, while dealers in the first market will be making telegraphic purchases in other markets. These sales on the one hand, and purchases on the other, strengthen the tendency which the price has to seek the same level everywhere; and unless some of the markets are in an abnormal condition, the tendency soon becomes irresistible.[7]

This equalization of values in different markets, with the published price quotations of all the securities traded in, makes it possible for an individual, wherever located, to buy or sell securities at prices which reflect fundamental values. Thus the holder of securities listed on the Stock Exchange is

> exposed to no fraud and is at the mercy of no rumor and no unscrupulous dealer. He has positive assurance that in case of necessity, at a moment's notice, he can obtain at the prevailing price the value in cash of every stock exchange security in his box. The ticker gives him instantaneous quotations; all the newspapers publish authorized prices for his benefit. . . . . He knows, moreover, that the price thus established is not merely the opinion as to value today, but that it represents a critical look into the future.[8]

[7] Alfred Marshall, *Principles of Economics*, I (4th ed., 1898), 403.

[8] Van Antwerp, *The Stock Exchange from Within*, p. 22.

The result of this stabilizing of securities' values and the publishing of quotations is to encourage the investment of funds in corporate securities by great numbers of people who would otherwise not be in a position to ascertain with any degree of accuracy what price should be paid for securities and who would also be unable to protect themselves from fraud and sharp dealings. It also promotes the development of a world financial organization, the concrete evidence of which is best shown by reference to the list of over eleven hundred securities which are traded in on the London Stock Exchange, representing industries in all parts of the world.

The service of pecuniary accounts in directing the flow of capital is made effective by means of the stock exchange.—In the third place, the stock market facilitates the profitable distribution of capital among different industries, among different plants in a given industry, and among different countries and regions of the world. In chapter i we discussed the rôle of the pecuniary unit in this connection. It is now in point to note that the distribution is worked out through the purchase and sale of shares of stock and bonds which find quotations in terms of the pecuniary unit on the organized exchanges. The fluctuations in the prices of different securities, being reflections of fundamental underlying conditions, indicate in general in what directions capital can find its most profitable investment. If the earnings of the railroad companies are low and the outlook for the future dark, the low prices of bonds and shares resulting from speculative activities make it clear to investors that railroads do not offer a promising field for future investment. Incidentally it is also made clear to rate-controlling commissions that, if capital is to be attracted into the railroad industry, rates must be readjusted to a level which will permit railroad profits. If, on the other hand, the earnings of automobile concerns are very large, the high prices of automobile securities indicate the opportunity for large profits in the automobile industry and capital is attracted into that line. The stock-market index of

values thus facilitates the movement of capital to the places of greatest temporary demand.

While there are often miscalculations and over-hopeful estimates of the future, and while there may at times be manipulation which results in a false picture of the situation, the nature of the service that is performed by the stock exchange in this connection will be clear if one reflects as follows:

> Suppose for a moment that the stock markets of the world were closed, that it was no longer possible to learn what railways were paying dividends, what their stocks were worth, how industrial enterprises were faring—whether they were loaded up with surplus goods or had orders ahead. Suppose that the information afforded by public quotations on the . . . . exchanges were wiped from the slate of human knowledge; how would the average man, how would even a man with the intelligence of a Pierpont Morgan, determine how new capital should be invested? He would have no guide except the most isolated facts gathered here and there at great trouble and expense. A greater misdirection of capital and energy would result than has been possible since the organization of modern economic machinery.[9]

Stock speculation "carries" and "tests" the merits of unseasoned securities.—Finally, one of the greatest functions of the stock exchange is that of "carrying" masses of new securities during their seasoning period. In the event that a new issue of securities does not go well and remains unsold at the expiration of the underwriting agreement, it becomes necessary for the underwriters either to carry these securities on borrowed funds in the hope of a favorable turn in the market or to sell them at a convenient opportunity and pocket their losses. The stock market provides the means either for holding or disposing of the securities.

If the underwriters decide to carry the securities, they must, as indicated in the preceding chapter, borrow heavily from the commercial banks. This they are enabled to do only because the stocks and bonds in which they are dealing are a satisfactory collateral security for bank loans, in consequence of their ready salability through the mechanism provided by the stock

[9] Charles A. Conant, *Wall Street and the Country*, pp. 92–93.

exchange. In case the underwriters elect to dispose of their holdings, it is obvious that the stock market provides the opportunity.

The securities that are unloaded by the underwriters, moreover, become subject to speculative activities, largely through "margin" trading, with the commercial banks again furnishing a large percentage of the funds required. Many securities, particularly those of a highly speculative nature, are also traded in on the Curb before any of them are purchased for investment, these operations again being made possible mainly by margin trading on borrowed funds.

These unmarketed, or "undigested," securities may remain subject to speculative activity for considerable periods of time, not infrequently for several years, depending upon the state of the investment market and the character of the security in question.[10] This speculation, conducted with funds borrowed from commercial banks on amply margined collateral security, thus makes it possible for a corporation to procure the funds required in developing its business, even though its securities do not as yet commend themselves to ultimate investors. The corporation is thus enabled gradually to demonstrate by industrial achievement its merits as an enterprise. Meanwhile the subjecting of its securities to the test of speculation gradually serves to indicate their actual value and thus to induce individuals to "pick them up" for investment purposes.

It should be observed that at this place the analysis ties back with that in the chapter on the marketing of low-grade or speculative securities. Here is clearly one way of raising capital for untried enterprises that does not place the risks upon the investing public. It is, moreover, a method of very great importance; for many of the high-grade stocks of the present time that are held largely by investors have passed through a pro-

[10] For actual data concerning the relative holdings of certain stocks by brokers and individuals over a period of years, see J. E. Meeker, *The Work of the Stock Exchange,* pp. 593–94.

bationary period as purely speculative issues. It has been estimated, indeed, that stock speculation served as a means of furnishing probably the largest share of the fixed capital that was used in the great period of industrial expansion following 1898. The volume of stocks and bonds that was annually being issued by new corporations far outran the absorbing power of the investment market, and hundreds of millions in securities could not be sold to ultimate investors. The National City Bank of New York estimates that in 1900 over 60 per cent of the stock of our largest corporations whose securities were listed on the New York Stock Exchange was held in the names of stock brokerage houses and represented speculative accounts.

The history of the capitalization of our leading corporations shows that new stock issues almost invariably run through a period in which they are largely held by the speculative public in brokers' names (on funds borrowed from the commercial banks), the proportion so held gradually diminishing through a number of years as the investment buyers gradually purchase them to keep.

Stock markets, investment banks, commercial banks, speculators, and investors are thus intricately related to the process of marketing corporate securities; and the entire mechanism would break down if any of its interdependent parts should cease to function. In the absence of a securities' market, borrowing corporation and investing public—including savings banks and insurance companies—would alike be without an indispensable index of relative values. Without both the stock market and the commercial banking system, underwriters and distributors of securities would find it impossible to conduct their operations. The stock market could not perform its function in "carrying and testing" unseasoned securities in the absence of commercial bank loans to speculators; and the commercial banks, in turn, could not make loans to speculators if it were not for the stock exchange, which at once indicates the value of the collateral offered as security for the loans and makes possible its ready sale in case of need. The full significance of the part that the commercial banks play in the process cannot,

however, be made clear until we have studied the commercial banking mechanism in some detail. We shall also find that the stock exchange performs a very important rôle in connection with the raising of working capital.

QUESTIONS FOR DISCUSSION

1. "The Stock Exchange provides a market for the purchase and sale of securities of relatively high grade. The Curb and the Consolidated Exchange furnish a market place for the purchase and sale of securities of low grade and in small lots." Do you think that the Consolidated Exchange and the Curb market are less important than the Stock Exchange?
2. Show in what way the stock market is of service to each of the financial institutions with which it is connected in the chart on page 165.
3. Do the requirements for listing stock on the New York Stock Exchange insure that the stocks quoted will have a high value? Precisely what is the advantage of these "listing" requirements?
4. What is meant by: bulls? bears? speculators? brokers?
5. What is meant by short selling? How is delivery of the securities effected?
6. If short selling were prohibited, would there be as accurate an adjustment of the prices of securities to their real values?
7. Would it be possible to have a stock market and quotations of shares without a pecuniary unit of values?
8. What is meant by margin trading? Of what significance is it?
9. What sources of information as to stock and bond values are available for the general public?
10. Consult the financial section of your daily newspaper, the *Commercial and Financial Chronicle,* the *New York Evening Post* (Saturday edition), and the *Wall Street Journal;* and write a statement of the nature of the information there available.
11. Are the weekly market letters, daily newspaper quotations, special quick news, and "ticker services" of importance to the investor or only to the speculator?
12. What are the services rendered by brokerage houses? How do they make their earnings?
13. What is the purpose of the leased-wire system?
14. What are bucket-shops? Specifically how do they differ from brokerage offices?
15. Show concretely how the stock exchange aids in directing the distribution of capital.

16. If the stock market indicates that larger returns are to be derived from investments in industries that are manufacturing luxuries than in those that are producing necessities, and capital and labor are in consequence directed in increasing amounts to the luxury trades, is the result necessarily socially advantageous?
17. Enumerate as many groups of people or institutions as possible that make use of the stock exchange.
18. In what ways does the stock exchange promote investment?
19. "If it were not for speculation in securities, a large percentage of the issues of newly organized corporations would not be ultimately absorbed." Why?
20. Several years of speculation often result in the adjusting of stock prices at a very low figure, due to the low earning power of the issuing corporation. In a case of this kind, speculation finally ceases, and it is impossible to induce the investing public to purchase the securities, which have been floating in the market, as permanent investments. Who has borne the loss in such a case? What is the economic advantage of such speculation?

REFERENCES FOR FURTHER READING

Conant, Charles A.: *Wall Street and the Country.*

Emery, Henry C.: *Speculation on the Stock and Produce Exchanges of the United States.*

Fayant, Frank H.: *Some Thoughts on Speculation.*

Governor Hughes' Committee on Speculation in Securities and Commodities: "Report (1909)," *Money Trust Investigation* (1913).

Hirst, F. W.: *The Stock Exchange.*

Huebner, S. S.: *The Stock Market.*

Lavington, Frederick: *The English Capital Market.*

Meeker, J. E.: *The Work of the Stock Exchange.*

Van Antwerp, William C.: *The Stock Exchange from Within.*

CHAPTER XVI

TRUST COMPANIES AND THE MODERN FINANCIAL SYSTEM

In many respects the most interesting financial institution of the present day is the trust company. The growth of this institution, called into being to meet the diverse requirements of a capitalistic economic system, has been nothing short of phenomenal during the past forty years, and especially since the era of financial consolidation which began with the turn of the century. Popularly confused with the type of business organization that was declared illegal under the Sherman Anti-trust Law, the trust company is, in truth, only a new kind of financial institution that has developed to fill the gaps in a hitherto incomplete financial structure. In the course of its evolution, however, it has not only rounded out the financial system; it has invaded the field of most of the other financial institutions as well. The trust company has thus been felicitously designated "the department-store of finance," and "the omnibus of financial institutions."

The first trust companies in the United States, organized early in the last century, combined the business of insurance with that of trustee for individuals and estates. Now, however, all forms of insurance except fidelity and suretyship have been taken over by the regular insurance companies; and even these two are more and more being surrendered to specialized fidelity institutions. Although the rapid increase in the number and size of private fortunes and estates in the second half of the nineteenth century has greatly expanded the volume of trustee business for individuals, it has been the growth of the corporation which has given the trust company its largest and most distinctive field of enterprise. The great variety of ways in which the

trust company is of service to the corporate system of finance will be revealed below.

I. THE SCOPE OF TRUST COMPANY OPERATIONS

The nature and variety of financial operations engaged in by trust companies may be seen from a summary of the powers conferred upon such institutions by the law of the state of New York:

1. *Banking:* A trust company may

a) Receive deposits of money.

b) Lend money on real or personal securities.

c) Accept for payment at a future date drafts drawn upon it by its customers.

d) Buy and sell exchange, coin, and bullion.

e) Discount and negotiate drafts, promissory notes, bills of exchange, and other evidences of indebtedness.

f) Issue letters of credit authorizing the holders thereof to draw drafts upon it or its correspondents at sight, or upon time not exceeding one year.

g) Give its bonds or obligations when moneys, or securities for money, are borrowed or received on deposit, or for investment.

2. *Investment:* A trust company may

Purchase, invest in, sell stocks, bonds, mortgages, and other securities.

3. *Agency:* A trust company may act as

a) Fiscal agent, transfer agent, registrar of the United States, any state, municipality, body politic, or corporation, and in such capacities may receive and disburse money, transfer, register, and countersign certificates of stock, bonds, and other evidences of indebtedness.

b) Attorney in fact for any lawful purpose, for any person or corporation (foreign or domestic).

c) Agent.

d) Agent for married women in respect to their separate property.

4. *Fiduciary:* A trust company may

Take, accept, execute any and all such legal trusts, duties, powers of whatever description, not prohibited by law, as may be granted to, confided in, conferred upon, intrusted to, transferred to, vested in it by any court of competent jurisdiction or surrogate, and may act under the order or appointment of such court, as

a) Guardian, receiver, trustee of the estate of any minor.

b) Depositary of moneys paid into court whether for the benefit of any minor, person, corporation, party.

c) Trustee, guardian, receiver, committee of the estate of any lunatic, idiot, person of unsound mind, habitual drunkard.

d) Receiver, committee of the property or estate of any person in insolvency or bankruptcy proceedings.

e) Executor of or trustee under the last will and testament, or administrator with or without the will annexed, of the estate of a deceased person.

f) In any other fiduciary capacity.

For person, persons, municipality, body politic, corporation (foreign or domestic), or authority by will, grant, assignment, transfer, or otherwise, it may act as

a) Executor or trustee under will or deed.

b) Trustee for married women in respect to their separate property.

c) Trustee under marriage settlements.

d) Trustee under separation agreements.

e) Depositary under stipulations between persons engaged in litigation.

f) Depositary in escrow of cash, securities, agreements.

g) Depositary under lease contracts.

h) Depositary under syndicate and reorganization agreements.

i) Depositary or agent of voting trustees under voting trusts.

j) Trustee under mortgages issued by corporations (foreign or domestic), municipalities, bodies politic.

k) Trustee under equipment trusts.

And according to the terms of, and being accountable to all persons in interest for the faithful discharge of every such trust, duty, or power which it may accept, it may receive, take, manage, hold, dispose of, sell any property, real or personal, wherever located, and the rents and profits thereof.

5. *Safe-keeping:* A trust company may

Let out receptacles for the safe deposit of personal property.

Receive for safe-keeping bonds, mortgages, jewelry, plate, stocks, securities, valuables, upon such terms and conditions as it may prescribe.

The first two types of operations engaged in by trust companies, namely, banking and investment, are in this treatise discussed in other chapters—banking in the chapters on savings and commercial banking, respectively, and investment in connection with the marketing of high-grade securities.[1] In this chapter, therefore, we shall consider only the operations listed above under agency, fiduciary, and safe-keeping.

II. SERVICES RENDERED TO INDIVIDUALS

The trust company performs its services for individuals, for estates, and for corporations. The nature of the services rendered to individuals may in the main be readily ascertained by reference to the powers of trust companies, as shown in the outline above. Only one of the operations involved requires explanation, that of depositary in escrow.

An escrow is usually defined as "a deed placed by the grantor in the hands of a third party to be delivered to the grantee upon the fulfilment by the latter of certain specified conditions." Mortgages and notes as well as deeds may, however, be placed in escrow; and trust companies are often made depositaries of various articles of value which are to be held for delivery under conditions similar to those under an escrow arrangement. While not escrows in the strictly legal sense, they amount practically

[1] See also charts on pp. 340, 341, and discussion on pp. 719–23.

to the same thing and are sometimes called "informal" escrows. It is the duty of the holder of an escrow to deliver the instrument to the grantee upon his performance of his part of the contract, or to withhold the instrument in case the contract is not fulfilled.

An additional feature is the acceptance of "living trusts."—One of the most interesting services performed for individuals is not indicated in the foregoing grant of powers, that of a "living trust." Under a living trust a customer may deposit with a trust company funds or securities of any kind and during his lifetime may counsel with the company regarding investments and other estate matters. This enables the trust company to become familiar with the client's wishes as to the method of handling his estate, so that his policies may continue to be carried out after his death. At the same time, the individual is relieved of all details in connection with the handling of his affairs and receives the benefit of much valuable information and advice from investment experts.

III. SERVICES PERFORMED FOR ESTATES

For estates the following services may be enumerated: (1) administrator, executor, guardian, and conservator; (2) trustee under wills; (3) receiver and assignee; (4) depositary for money and property of estates under order of the Probate Court; (5) depositary for alien property custodian.

The advantages of the trust company over an individual in acting as trustee of estates are stated by one trust company as follows:

> It is a fiduciary organization manned by trained officers, experienced in the technique of modern trust and agency duties. It is the trustee for many estates the property of which requires manifold skill and composite knowledge to produce the maximum income therefrom. It is a trustee with continuous existence and therefore not subject to the limitations of an individual and the frailties of human life; it is able to give uninterrupted service from generation to generation. It is a trustee that has no family prejudices to bias its judgment. It is a trustee that has the financial ability to carry on an estate without embarrassment to the beneficiaries,

while property matters are in an unsettled condition. It is a trustee that has at its command a great many sources of counsel and knowledge in regard to investments. It is a trustee that does not need to give bond (for which an estate or trust must pay), because of its own ample capital and surplus.

It is now a common practice for a trust company to tender the services of its officers for the drawing of wills and to act as their custodian until the death of the testator. Such service is usually performed without charge, in case the company is appointed executor of the estate.

Trust companies sometimes manage insurance funds.—A service related to the management of estates, that of handling insurance funds for beneficiaries, has of recent years been developed by trust companies. This is done by means of a trust agreement. The policies are made payable, or are assigned to, the trust company as trustee, and at the death of the insured the company collects the proceeds of the policy, of which it has meantime been the custodian, and applies such proceeds according to the terms of the trust agreement. Since many insurance companies do not write policies allowing stated payments to be made to beneficiaries, this plan furnishes an opportunity for the insured to have his insurance paid in any manner desired. Trust agreements are sometimes made so that the beneficiary may be paid stated annuities out of the proceeds of life insurance. This arrangement is especially valuable where a man is not able to carry an amount of insurance such that the income alone will support his family. For instance, one of the leading companies of the central states advertises that with $10,000 of insurance it is able to pay an annuity of $500 for forty years.

IV. TRUST COMPANIES AND CORPORATION FINANCE

Among the services of trust companies none are more important than those rendered to corporate enterprise. A corporation is dependent upon the trust company alike in connection with the raising of fixed capital, with the management of certain

of its financial affairs as a going concern, and with safe-guarding the interests of both creditors and shareholders in the event of insolvency and financial reorganization. We shall find, moreover, that the investors in corporate securities are also largely dependent upon the performance of certain trust company operations. At this point, therefore, the analysis supplements that given in the chapters dealing with the marketing of securities.

The principal ways in which the trust company is of service in connection with corporate financing are as follows: (1) as trustee under mortgages and indentures, securing bond and note issues; (2) as trustee under equipment trust agreements; (3) as transfer agent; (4) as registrar of securities; (5) as depositary under reorganization agreements; (6) as fiscal agent.

1. *Trustee under mortgages.*—Under the system of corporate finance, bonds of small denomination are sold, as we have seen, to the general investing public on the security of a mortgage, which recites the conditions under which foreclosure proceedings may be started and states what property is to be turned over to the bondholders in case of insolvency. The appointment of a reliable trustee for the protection of the mortgage is accordingly indispensable to the successful operation of the system of issuing securities.

Before a trust company accepts a mortgage trust, great care is taken to ascertain the correctness of statements that are made and the legality of the mortgage. It is customary to require an opinion from a counsel of the corporation issuing the mortgage that the document has been drawn up in proper form and that it fulfills the requirements of the state in which the property to be mortgaged is situated. It is also customary to submit a draft of the proposed mortgage and bonds to the trust company for inspection, in cases where the bonds are passed upon by the legal counselors of the trust company. When the preliminary arrangements have been completed, the mortgage is executed in duplicate and acknowledgment of the acceptance of the trust is made by the trust company.

A closely related service is in connection with the engraving

and issuing of the bonds. Bonds are usually engraved by responsible engraving companies from plates especially prepared for the purpose. Precautions are taken by the trustee to prevent any impressions being lost or stolen; and sometimes the engravers are required to give security against loss resulting from negligence on their part. After the bonds have been printed, they are sealed with the corporate seal, attested by the officers of the issuing corporation, and then sent to the trust company, which certifies and delivers them as provided in the mortgage. Before certification, however, each bond is examined to insure its being in proper form.

Where the mortgage provides for a sinking fund for a gradual retirement of the bonds or for their payment at maturity, it is the duty of the trust company to see that such sinking-fund provisions are complied with. It thus acts as a sort of enforcing agent for the bondholders.

In the case of "collateral trust" bonds,[2] the collateral is held by the trust company for the protection of the bondholders. Sometimes the terms of the mortgage provide that the issuing corporation may make a substitution of collateral, in which case it is the duty of the trustee to make sure that the substituted securities are fully equal in value to the original ones.

2. *Trustee of equipment trusts.*—Equipment trusts arise from a special type of financial borrowing—that by railroad companies for the purpose of acquiring new rolling stock. As a means of making securities attractive to buyers, an arrangement is effected with the builder of railway cars whereby a partial payment may be made by the railroad company upon the delivery of the cars and notes given for the remainder. These notes, which usually mature serially over a period of years, are sold to investors. The title to the cars is vested in a trust company as trustee, and the railroad company leases the cars from this trustee. The rental received by the trustee from the railroad is sufficient in amount to meet the annual interest on the notes and to retire a certain number of them each year. In this way the

[2] See p. 113.

railroad is enabled to borrow the funds with which to purchase equipment at fairly low rates of interest and to pay off the obligation during the life of the rolling stock.

3. *Transfer agent.*—Trust companies are usually chosen to act as agents for transferring the ownership of corporate securities. This function may involve merely the transfer of existing shares from one holder to another; or it may involve the substitution of a new issue for an old; or of an issue of bonds for an issue of stock. As an instance of the latter, if a railroad company should decide to call in some of its outstanding securities and replace them by an issue of a different type, a trust company would be chosen to receive the old bonds from their holders, issue receipts for them, and later issue the new securities to the owners of these receipts. If money is to be paid on either side, it is distributed by the trust company, which thus acts as custodian of the interests of both the public and the corporation.

The services of a transfer agent have been described as follows:

> The duty of the transfer agent is to act for the issuing corporation in the matter of making transfers of the ownership of its stock from one holder to another. This involves the passing upon the regularity and legality of the assignment of title; the noting of the transaction upon the transfer books of the corporation; the cancellation of the old certificates and the execution and delivery of new certificates. Incidentally it involves the furnishing to the corporation of a certified list of the stockholders whenever the books are closed for the payment of dividends, and at other times as demanded.
>
> The performance of these duties requires that the transfer agent be the custodian of the stock books and the seal of the issuing corporation and of a supply of blank certificates. The certificates, bound in book form so that each certificate and its stub form one page, and numbered consecutively, are before delivery to the transfer agent signed by the proper officers of the corporation. The face of the certificate usually contains the provision that it is not valid unless countersigned by the transfer agent. On its back is usually printed an assignment of the stock and an irrevocable power of attorney. . . . .
>
> Before making delivery of a certificate, the transfer agent dates it, fills in the name of the new holder and the number of shares represented,

affixes the seal of the issuing corporation, and attaches the proper signature to the transfer agent's certificate.

The practical work of transferring stock requires a high degree of intelligence and care and a thorough knowledge of the law governing such transfers. The risks involved, aside from possible clerical mistakes, errors in bookkeeping, dishonesty or gross carelessness on the part of the employees who actually do the work, include mistakes of law or of fact in making transfers on forged indorsements, or on insufficient authority, or in violation of law, especially in cases of certificates held by persons as trustees for others. Certificates indorsed in blank are often presented for transfer by persons other than the holders of record. The transfer agent must know the signatures of stockholders or otherwise identify them beyond question. Where stock is held in fiduciary capacities, the agent must know the terms and powers under which it is held. When a certificate is presented for transfer, the transfer clerk should know that the certificate itself and the power of attorney accompanying it are genuine; that the transferrer is legally competent to make the transfer; that no notice has been given the company of any outstanding claims against the stock; that, in the absence of direct notice, there is no implied notice of claims, such as the certificate itself may give when standing in the name of a trustee.

On the subject of the exact liabilities assumed by the transfer agent in agreeing to perform these services, there is a considerable difference of opinion, which is readily accounted for by the fact that there is no statute law covering the case, and very little law in the shape of court decisions. While the office is sometimes undertaken under special contract which details the liabilities to the issuing corporation, the more common method of appointment is by a mere resolution of the directors of the issuing corporation appointing the Blank Trust Company as the transfer agent of its stock, and the acceptance of the appointment by the latter. This method assumes that the duties and liabilities of the position are so well known as to require no definition; an assumption which is justified so far as routine duties are concerned, but which as to liabilities seems inconsistent with the divergent opinions held by officers of banks and trust companies which act as transfer agents. The difference of opinion does not concern what the trust company accepting an appointment expects and intends to undertake, but has reference to possible implied and incidental obligations which it does not intend to assume, but for which, in the opinion of some writers, the courts may hold it responsible. It is well understood in banking and trust circles that the transfer agent undertakes to say to the purchaser of the stock which it has countersigned no more nor less than that such stock is a genuine portion of the capital stock of the issuing company, that the said company has been duly authorized to do business by the secretary of

the state in which the company is incorporated, and that the signatures of the officers to the certificates of stock are genuine.[3]

4. *Registrar of securities.*—The purpose of having an independent registrar of stock, or of registered bonds, may best be disclosed by reference to the origin of the practice. In 1863 occurred the notorious Schuyler frauds, in which Robert Schuyler, who was president and also transfer agent of the New York and New Haven Railroad Company, apparently overissued the stock of his company. Since such practices, if unchecked, would soon bring the entire securities' business into disrepute, the New York Stock Exchange, in order to prevent a recurrence of such frauds, adopted a rule in January, 1869, which required all active stocks to be registered by an agency approved by it. The duties of a registrar are stated by Herrick as follows:

> The duty of the registrar of stock is to register, or record the issue of, certificates of stock after they have been issued by the transfer agent, for the purpose of preventing an over-issue of such stock. Before assuming its duties the registrar must be furnished with authentic information as to the total amount of stock authorized to be issued, if none has been issued; or as to the total amount of stock authorized to be issued and the amount outstanding, if part or all has been issued. After the total amount of shares authorized to be issued has been registered, new certificates are not registered except upon the cancellation of outstanding certificates for the same number of shares.
>
> In practice the registrar keeps a registry list, and as stock is transferred by the company or its transfer agent it receives in each case the old certificate as surrendered and the new certificate as prepared to take its place, it compares the two, it notes upon its registry list the surrender and cancellation of the old and the issue of the new in substitution, and it thereupon identifies the new certificate by its signature upon its face as a part of a stated authorized issue.
>
> The liabilities involved are at the present purely a matter of opinion, as there is practically no law on the subject.[4]

It is almost a universal practice for a corporation to select as registrar a different trust company from the one which serves as transfer agent. The function of the registrar is to operate as a check upon any error or irregularity; and with a single insti-

[3] Clay Herrick, *Trust Companies,* pp. 413–16.

[4] Herrick, *Trust Companies,* pp. 425–26.

tution acting both as registrar and as transfer agent there is obviously a greater possibility that an overissue of securities will not be detected. Where registrar and transfer agent are separate institutions, collusion would be necessary to permit an overissue; the separate agents in a sense act as checks upon each other.

5. *Depositary under reorganization agreements.*—In case of the default of interest on bonds, a committee is usually formed to represent the bondholders. This committee formulates a plan of financial reorganization; and, pending the reorganization, the committee calls for the deposit of the bonds, the interest on which has been defaulted, with some trust company, which is designated as depositary. In exchange for these securities the trust company gives temporary receipts, good for a limited number of days only. Since the process of reorganization usually requires several months—if not years— these temporary receipts are later exchanged for engraved certificates of deposit which are in transferable form and available for trading on the stock exchange like regular bonds and shares. These certificates specify the kind and value of the security deposited and the terms under which the certificate is issued, and state that the trust company holds the securities on terms agreed to by the owners thereof.

Financial reorganization is also necessary whenever a consolidation of several corporations into a single company is effected. The trust company is here also called upon to act as depositary during the process of financial reorganization.

The trust company may also act as assignee and receiver when a firm or corporation becomes insolvent. The appointment of a trustee as assignee may be made either at the request of the owners of the business, who wish to protect their property, or at the instance of creditors, who wish to safeguard their interests. The property may be turned over to the trust company by an assignment, in which case the assignee's duties usually consist of collecting the debts and requiring creditors to prove their claims.

The trust company acts as receiver under appointment by a court, and the object is generally to tide an embarrassed enterprise over a period of difficulty. Since the receiver is merely an officer of the court, it has no powers other than those conferred upon it by the court. The court authorizes the issue of receiver certificates to provide funds for the purchase of equipment, the maintenance of the property, and the conduct of the business. Such certificates may be made a first lien on all assets, even taking precedence over mortgages and other secured obligations. In this way the receiver is enabled to secure the necessary capital with which to place the company upon a satisfactory financial footing.

6. *Fiscal agency.*—As fiscal agent for a corporation, the company takes either general or special charge of the finances of the corporation, according to the terms of the agreement. It may assume the rôle of treasurer, having charge of all receipts and disbursements; or it may merely act as agent for the payment of coupons, interest, and dividends, either under the terms of a mortgage or independently of any trusteeship.

A certain trust company states that as fiscal agent it will assume custody of securities, give notice of maturities, and collect coupons as they come due; take custody of title deeds, insurance policies, and other documents, keeping all necessary records incident thereto; examine periodically the condition of corporations whose securities are held and advise with the proper officers of the organization with respect to the replacement of securities that are becoming less valuable; examine periodically real estate when under lease, especially where the lease requires the payment of taxes and observance of obligations by tenants in the matter of repairs and replacements; keep separate general books under such accounts as the corporation may direct.

One trust company suggests:

> The management of business corporations may well consider the advantage of having general salary accounts, dividend, interest, investment, bills payable, profit and loss, and other general and controlling accounts kept separate from the accounts of the operating office and from the observation of employees therein.

In many cases the volume of such general office business, even inclusive of records of directors' and stockholders' meetings, would not warrant the considerable expense of a suitable separate corporate office. In such cases the fiscal agency service of this company gives all the benefits of such an office at a nominal cost.

As agent for the payment of interest, dividends, etc., the trust company receives from the corporation, in advance of the date when interest or dividends are due, a sum of money equal to the total amount to be paid. In the case of coupon bonds the interest is held subject to the call of the owner, while in the case of dividends on stock and interest on registered bonds a check is sent to the owners whose names appear on the register held by the registrar.

Although coupons are made payable to bearer, a record is made of the names of the persons who present them for payment at the counter of the trust company, or of the names of the banks presenting them on behalf of their customers. The trust company keeps a record of the numbers of the bonds from which the coupons are cut. When paid the coupons are cancelled by the punching of holes in them; and they are then filed away by bond numbers, to be returned at intervals, usually monthly, to the issuing corporation.

Trust companies also act as fiscal agents for educational and charitable institutions, clubs, lodges, etc.—The nature and significance of such service is stated by one trust company in the following language:

The functions of educational, charitable, and similar institutions continue uninterruptedly from generation to generation. Executive officers, serving for the most part without compensation, change frequently, involving a transfer of records and securities, always with the danger of loss of records and of inadequate attention to the changing values of securities. It is therefore highly desirable to secure continuity of service, permanent housing of important records, and prompt and efficient handling of the routine work of the organization.

The Trust Company will provide such secretarial and stenographic service as may be required for giving necessary notices of meetings; will transcribe minutes and resolutions accurately and uniformly into the permanent records; will give notice of all dues and other obligations payable

to the organization; will receive and acknowledge all payments made for the organization's account, and deposit the same, reporting at regular and special meetings the collections made and the items in default; will draw checks for authorized amounts covering all items payable, including annuities, interest, salaries, and current accounts, and will mail the same.

Oftentimes the secretary and the treasurer of an organization are persons who are absorbed in the duties of their own calling or are frequently absent from home. It is highly desirable that the responsibilities of these offices be in hands where routine will be promptly and efficiently handled.

In many cases the treasurer is allowed a fund for clerical assistance. Such a fund, applied to secure fiscal agency service, will relieve the treasurer of responsibility of oversight and will guarantee the accuracy and integrity of the records.

It is certainly an advantage and a matter of prestige to be able to obtain in the handling of the securities, accounts, properties, and investments of any organization the degree of accuracy, the absolute responsibility, and the safeguards of state supervision which are to be found in a trust company alone. Whatever the high character or ability of an individual, it is out of the question that he can bring to bear on such duties all of the highly specialized forces of a large banking institution.

V. THE TRUST COMPANY AS CUSTODIAN OF SECURITIES

While trust companies are not the only financial institutions that maintain safety-deposit vaults and boxes for the safe-keeping of valuables and securities, they have from the beginning made a specialty of such business, trust company legislation having recognized it as an important feature of trust company work. The law of New York, for example, authorizes trust companies—

To receive, on terms and conditions to be prescribed by the company, upon deposit for safe-keeping, bonds, mortgages, jewelry, plate, stocks, securities and valuable papers of any kind, and other personal property, for hire, and to let out receptacles for safe deposit of personal property.

Some of the larger companies have gone much farther than merely to maintain safety-deposit boxes. The growth of large fortunes, which under modern conditions are mainly invested in corporate securities, has opened up a new field of work for the trust company—that of custodian of the securities and papers

deposited with them by individuals. The amount of detail that must be looked after if the owner of a large volume of securities is to avoid losses and make the most of opportunities is so great that a responsible financial secretary and adviser is practically indispensable. In this capacity trust companies render a variety of important services, outlined by a large New York trust company as follows:

A. Availability

When securities are locked up in a safe deposit box, they are *not available* to the owner in case of sickness or absence from home. From this cause serious embarrassment often results, for, while a person may be entirely solvent, his securities may not be available in time of need, merely because for some reason he is unable to go to his safe deposit box in person.

On the other hand, when securities are held in safe-keeping, they are *available* to the depositor at any time. By letter, telegraph, or cable, he may direct their delivery or sale, and may withdraw them at any time to be used as collateral to loans. No matter where the depositor may be, his securities *are always subject to his control and direction.*

In order that our clients readily may direct the sale or delivery of stocks or registered bonds, the securities should be endorsed in blank with the signatures properly witnessed or guaranteed.

Where prolonged absence is contemplated, it is especially desirable to have the stocks or registered bonds stand in the name of a nominee of the trust company. This is especially the case where the securities stand in the names of women, whether married or unmarried, as a certificate in a woman's name is not a "good delivery" in accordance with the rules of the New York Stock Exchange, and must be transferred to the purchaser's name or to the name of one of our clerks before delivery can be made. This transfer necessitates the payment of a double transfer tax.

A further advantage in having securities stand in the name of a nominee is that it makes it possible to sell a portion of the stock represented by a certificate and still have the remainder in negotiable form. For instance, if a depositor has a certificate for 100 shares of stock registered in his name and endorsed in blank, and while absent from the city desires to sell only 50 shares, the 100-share certificate must be split into two 50-share certificates, one of which may be registered in the name of the pending purchaser; but the other would stand in the name of the depositor and would necessarily not be endorsed and therefore would not be negotiable. The remaining 50 shares, therefore, would not be available for sale until endorsed by the depositor for that purpose. If, however, the certificate stood in the name of a nominee, the new certificate upon its re-

ceipt from transfer would be immediately endorsed by the nominee in blank, and would be ready for immediate sale upon proper instructions from the depositor.

The Trust Company is at all times responsible for the acts of its nominees, and requires them to file written instruments with the Company, declaring that the nominee has no ownership in the certificates standing in his name for that purpose, thus insuring that no claim of ownership may be made by the executors or personal representatives of a deceased nominee.

The Company makes no charges to its depositors for purchasing, selling, or delivering securities for their account. Depositors, if they desire, may direct purchases or sales through their own brokerage houses, requesting their brokers to receive or deliver the securities at this office. At the same time instructions should be given to this Company to receive and pay for the securities purchased, or to deliver and receive payment for the securities sold, and to charge or credit the depositor's account.

Orders may also be placed directly with the Company, which will effect the purchase or sale of securities through brokers.

Whether the order is placed directly through the broker or through the medium of the Trust Company, the broker's commission is (of course) added to the purchase price or deducted from the proceeds of the sale, but the Trust Company makes no charge for its services. In order to insure the genuineness of all orders and to protect our depositors against fraud, their signatures are filed with the Trust Company, and are compared with all written instructions.

It is advisable for our depositors to arrange secret code signatures known only to the depositors and the officers of this Company, which will identify all instructions sent by cable or telegraph. If desired, secret code words may be agreed upon to cover any specific transaction concerning which the depositors may desire to give instructions, thus saving the expense of long messages.

Persons traveling will find it very economical to make use of the public codes, such as Lieber's code and the Western Union code, which are especially adapted for general communications, and Hartfield's New Wall Street code which is expressly designed to cover all transactions in securities. One or the other of these codes may be found at the offices of all our correspondents and very generally in any telegraph office or large banking house.

B. Routine Care

1. Collection of principal and income:

a) Collection of principal of maturing bonds: The principal of bonds as they mature is collected and the proceeds either remitted to the depositor or credited to his account, under advice. Notice of principal of bonds

becoming due and payable is given a month in advance in order to allow the depositor to arrange for reinvestment without the loss of interest.

b) *Collection of bond interest:* Coupons upon bonds are detached and deposited for collection when due, the proceeds being either remitted to the depositor or credited to his account, under advice.

c) *Collection of dividends:* Where the stock stands in the name of a depositor, in order that the Trust Company may receive the dividends as they are paid, the depositor must sign a "dividend order." Where stocks are held in our care, it is recommended that the dividends be made payable to this Company, for account of the customer, in order that it may be assured that the dividends are received. Failure to receive a dividend when due causes an immediate investigation, the depositor being notified in case the dividend is passed. Similarly, the depositor is notified in case the dividend is either increased or reduced.

2. Preparation of certificates required under the Federal Income Tax Law preliminary to the collection of coupons, registered interest, or dividends: The Federal Income Tax Law surrounds the collection of income with considerable detail more or less vexing to the investment holder. This detail the Trust Company is prepared to assume under an agency appointment, and thereafter such information as may be required by the Federal Income Tax Law incident to the collection of the income of its depositors is prepared and submitted by the Trust Company without further action of its depositors.

3. Statements:

Depositors receive periodically, at such times as they may request, statements of securities which they have deposited in safe keeping, showing

a) The amount of each security

b) Its description

c) Its due date

d) Dates on which interest or dividends are paid and the income return

C. Supervision of Deposited Securities

The average individual is kept informed concerning his holdings only through his own efforts. Unless he personally keeps constantly in touch with the information published from time to time relative to his securities, he may lose many opportunities either to act to his advantage or to save himself from possible loss. For instance:

a) His bonds may be called for payment either at the option of the issuing company or through the operation of some sinking fund. After the date on which a bond is called for payment, interest ceases. If the holder's attention is not called to this he loses the interest which he would have received had his money been invested immediately.

b) His bonds may have the valuable right of being converted into stock on or before a certain date, upon the expiration of which the privilege is lost.

c) He may have the right to subscribe to new issues of stocks or bonds. Generally, this privilege is evidenced by a certificate, which is commonly known as "a right," which entitles the holder to subscribe to stocks or bonds upon paying a certain sum not later than a certain date, after which the privilege ceases.

d) In time of business depression, committees are often formed for the protection of securities and may require their immediate deposit. Committees usually fix a certain date on which securities must be deposited; after this date a penalty attaches. Further, committees sometimes protect only the securities deposited with them, and the non-co-operating security holder, especially in the case of stocks, may not receive substantial advantages which might be gained by acting with the committee.

e) Receivers may be appointed for property in which he is interested. This may make it advisable to dispose of the holdings immediately, before greater loss is incurred.

f) Notice of opportunity to sell bonds to sinking funds. We endeavor to keep our depositors in touch with these opportunities, as they often afford the best opportunity of disposing of securities which have a narrow market.

In addition to the above services, which are rendered automatically but only at the express request of our depositors, periodical examinations of their holdings are made by investment experts with a view to determine whether it seems advisable to recommend either a change in their securities because of new conditions which have arisen, or in order to secure a more balanced and conservative investment.

D. Additional Services Rendered to Depositors

The services already enumerated are those directly connected with the care and supervision of securities, but there are many other matters which we are pleased to attend to when requested, such as

1. *Payment of:*

Taxes on real estate and personal property
Interest on bonds, mortgages, and bank loans
Premiums on life and fire insurance policies
Rent of houses or apartments
Storage charges
Allowances to children, relatives, or dependents

In other words, the service is not confined within formal limits, but responds to the needs of our depositors.

2. *Transfer of securities.*—We are pleased to undertake to effect the transfer of stock certificates and registered bonds which our clients desire to have transferred either to their own names or to the names of beneficiaries under wills or deeds of trust.

3. *Care of securities for executors, administrators, guardians, and committees.*—Individuals acting in the capacity of executors, administrators, guardians, trustees, or as committee for incompetent persons having securities in their charge, instead of placing the securities in safe deposit, may be relieved of the routine care and trouble in handling securities by depositing them in the custody of the Company.

The foregoing services as custodian are performed for individuals. Trust companies also act as custodians of the securities of firms and corporations. Modern enterprises often invest surplus funds, reserves, etc., in securities, and the deposit of such securities with a trust company eliminates the expense of providing costly and secure vaults and renders it unnecessary to require the giving of bonds by employees for the faithful discharge of their responsibilities.

Trust companies perform many services for "correspondent banks" and brokerage houses.—In connection with out-of-town banks and brokerage houses, both in the United States and abroad, correspondent banking houses which deposit securities for safe-keeping in New York are given practically all the facilities of a branch office. A trust company in New York provides a place where all matters pertaining to the purchase and sale of securities may be cared for, thereby obviating (*a*) delay in making settlement, (*b*) delay in shipping securities to and from New York, (*c*) expense of postage, expressage, and insurance. The trust company also collects interest coupons and credits the amount to the correspondent banks, thus saving delay and expense in making collections. (This service is of importance for the reason that most large corporations maintain an agency for the payment of their coupons in New York City.) The trust company also prepares income-tax certificates for out-of-town banks; it looks after the collection of dividends, in many cases; and it provides facilities for effecting transfers of ownership of securities. Nearly all of the great corporations of the country

maintain offices or agencies in New York where their securities may be transferred and registered. A representative of the trust company is thus in a position by personal interview "to discuss difficult questions with the various offices or agencies and to ascertain the proper papers to effect transfers, thus obviating the delay which usually occurs when the matter is handled by letter."

Foreign correspondent banks which deal in American securities find it of very great service to have an agency in New York. This is especially true when securities issued stand in the name of decedents, executors, administrators, trustees, or guardians; for in cases of this sort, the trust company relieves the correspondent banks from the necessity of familiarizing themselves with the diverse requirements of the different corporations and of the particular laws of the several states.

VI. THE REGULATION OF TRUST COMPANIES

There is little to be said on the subject of trust-company regulation, for the reason that the trust companies, like the investment banks, have developed without being subjected to much legislative control, except in connection with their banking departments.[5] In general, the state laws under which they are chartered have conferred upon them very broad grants of power, and they have been enabled to develop along pragmatic lines. While practically free from legislative restrictions so far as their non-banking departments are concerned, trust companies are, however, subject to the laws pertaining to trust and agency business in general. There appears to be little doubt that these laws have, on the whole, been sufficient to insure the faithful performance of the manifold duties which trust companies assume.

This general survey of the broad scope of trust company operations is sufficient to disclose the very important part that these institutions play in the modern economic system. In a very real sense it may be said that the development of some such in-

[5] This phase of trust company regulation will be considered in chap. xxix.

stitution was indispensable to the growth of the large-scale corporate form of capitalistic enterprise involving so many details of financial management and so difficult a task of safeguarding the equities both of the corporate enterprise itself and the owners of its securities. Similarly, the great accumulation of wealth during the last few generations has rendered it practically impossible for individuals to serve efficiently as trustees of estates, etc.

As pointed out at the beginning, however, the analysis in this chapter pertains only to certain phases of the work performed by the department-store financial institution that is organized under the title of trust company. While the banking and bond-house functions of trust companies are necessarily discussed in other chapters of this functional analysis, it is important to point out here that an institution such as the trust company, which performs practically every type of financial operation under one roof, is in many ways a highly advantageous type of business organization. We shall see in chapter xxix how its development is rapidly serving to eliminate specialization in the field of financial enterprise and forcing all financial institutions to assume in greater or less degree the department-store form of organization.

QUESTIONS FOR DISCUSSION

1. How do you account for the fact that the growth of trust companies did not become rapid until about 1880? Why was it especially rapid after 1900?
2. Before the development of trust companies, how were individual "trusts" handled?
3. Which types of trust company operations, as shown on pages 284-86, are most important from the standpoint of (*a*) individuals, (*b*) corporations?
4. Make a list of the services that are rendered to: (*a*) individuals, (*b*) corporations.
5. Do you regard "living trusts" as important?
6. "A trust company is preferable to individual trustees, because it possesses every quality of desirability which the individual lacks, to wit: (*a*) It does not die. (*b*) It does not go abroad. (*c*) It does not become insane. (*d*) It does not imperil the trust by failure or dishonesty. (*e*)

It does not refuse to act from caprice or on the ground of inexperience. (*f*) It does not resign. (*g*) It has no sympathies or antipathies and no politics. (*h*) It is absolutely confidential. (*i*) It is invariably on hand during business hours and can be consulted at all times. (*j*) It never neglects its work or hands it over to untrustworthy people. (*k*) Its experience and judgment in trust matters are beyond dispute." Do you agree with all of these contentions?

7. "Trust companies to a considerable extent do away with the element of personal risk attaching to an individual trustee; but they lack the advantages of personal management. These companies sometimes fail from improper management as utterly as individuals do, and as a rule the lack of personal management results in securing the minimum return, only, on the amount invested, and lacks the great advantages often secured by the able personal oversight of individual trustees."
8. "No doubt there are some objectionable features in having for trustee a corporation which has neither a body to be kicked nor a soul to be damned. It has sometimes been said that the trust companies lack the advantage of personal interest that attaches to an individual trustee. While there have undoubtedly been cases where trust companies have been inefficient and lax in the handling of trusts, it cannot fairly be made as a general criticism that the interests of the client suffer for lack of the personal touch. It all comes back to the question of the qualifications and integrity of the corporation's officers and officials." What is your judgment on the issue raised in this and the preceding question?
9. In what respects is a trust company superior to an individual in the performance of *agency* functions?
10. Draw up a list of all the ways in which the trust company assists in the marketing of securities.
11. How is the borrower safeguarded in the "equipment trust" plan of raising capital?
12. Why is a transfer agent necessary? Could not the issuing corporation take care of this work quite as satisfactorily as an agent?
13. What liabilities do you think the trust company should assume as transfer agent?
14. Would it not be better to require the state government which charters the corporation to act as transfer agent, rather than to have an independent trustee?
15. Precisely how might frauds arise in the absence of an independent registrar of stock?
16. Why is it important to have different trust companies serve as transfer agent and registrar for a given issue?

17. Do you understand that a given trust company might be the transfer agent for one corporation and registrar for another?
18. State the different ways in which a trust company is of service in connection with financially embarrassed or insolvent corporations.
19. In the absence of trust companies how would problems such as those mentioned on pages 393–97 be handled?
20. Which of the various services listed under fiscal agency do you regard as of greatest importance to a corporation?
21. If you were manager of a corporation, would you employ a trust company to act as fiscal agent or would you manage the problems involved yourself and "save the fees"?
22. Do non-profit-making institutions have a greater or less need for fiscal agency service than business corporations? Why?
23. Do you think the statement is true that the custodian services of trust companies are essentially an outgrowth of the development of corporate enterprise?
24. In what respects is a trust company a more desirable custodian of securities than an individual agent?
25. Would the amount of routine work required in caring for the collection of interest, dividends, principal, etc., be really irksome to an individual of large means? Is not "clipping coupons" supposed to be a congenial vocation?
26. Draw up a brief statement showing what it would be necessary for an individual to do in order to prevent avoidable losses on his investment holdings.
27. As manager of a corporation, would you employ a trust company to take the custody of reserve and other funds?
28. Is it only the trust companies of the great financial centers that are in a position to render important services to correspondent banks and brokers?
29. Do you think trust company operations—aside from banking—should be subjected to special legislation, or are the general laws of trusts and agency sufficient?
30. Draw up a statement of the economic significance of trust companies.

REFERENCES FOR FURTHER READING

Barnett, George E.: *Growth of State Banks and Trust Companies since 1865.*

Herrick, Clay: *Trust Companies, Their Organization, Growth, and Management.*

Kilburn, F. D.: "Control and Supervision of Trust Companies," *Annals of American Academy,* Vol. XXIV (1904).

Kirkbride, F. B., and Sterrett, J. E.: *The Modern Trust Company.*

Perine, E. T.: *The Story of the Trust Company.*

Noyes, A. D.: "Trust Companies," *Political Science Quarterly,* Vol. XVI (1901).

Trust Companies. A monthly magazine published by the New York Trust Companies Publishing Association.

Trust Companies of the United States. An annual volume published by the United States Mortgage and Trust Company, New York.

CHAPTER XVII

THE FUNCTIONS OF SAVINGS INSTITUTIONS

The savings bank was indicated, in the charts on pages 163 and 165, as a financial intermediary in the raising of capital for business enterprises. It should be understood, however, that savings institutions also assist in the raising of funds required by governments—federal, state, and local; in the furnishing of capital for agricultural purposes;[1] and in the financing of urban real estate operations,[2] particularly in the construction of apartment buildings.

There are several different types of savings institutions, which may be classified as: (1) mutual or trustee; (2) stock; (3) postal; and (4) co-operative. The mutual and stock savings banks are by far the most important, and it is through them that the bulk of savings in the United States has been effected. Postal savings institutions, which are designed to encourage and facilitate the making of savings by people in very moderate circumstances, have been in existence in the United States for about ten years only. Co-operative savings banks are institutions organized mainly for the purpose of promoting thrift, through co-operative action, among special groups of individuals. They include building and loan associations, fraternal societies, credit unions, etc.; consideration of these institutions will be reserved for the chapter on Consumptive Credit Institutions.

I. STOCK SAVINGS BANKS

If one is clearly to understand the work that is performed by savings institutions, he must be able to interpret the accounts that are shown on the balance sheet, or financial statement. The

[1] See chart on p. 625.

following financial statement shows the combined resources and liabilities of 990 stock savings banks in the United States, which reported to the Comptroller of the Currency in the year 1924.[3]

COMBINED STATEMENTS OF STOCK SAVINGS BANKS

RESOURCES

	(000 omitted)
Loans secured by real estate	$ 25,135
Loans secured by other collateral	13,871
Loans not secured	12,806
Loans not classified	1,250,298
Overdrafts	446
United States bonds	139,084
State, county, and municipal bonds	5,506
Railroad bonds	11,323
Bonds of other public-service corporations	5,731
Unclassified bonds and securities	205,599
Banking house, furniture and fixtures	54,610
Other real estate	17,076
Due from banks	107,641
Lawful reserve with Federal Reserve bank or other reserve agents	27,254
Checks and other cash items	13,679
Cash on hand	29,113
Other resources	4,212
Total	$1,923,384

LIABILITIES

Capital stock	$ 86,387
Surplus	44,330
Undivided profits	19,043
Due to banks	957
Certified checks and cashiers' checks	826
Individual deposits, subject to check	16,619
Individual time and savings deposits	1,415,605
Individual deposits not classified	314,199
Postal savings deposits	186
Other United States deposits	4,310
Bills payable	15,123
Other liabilities	5,799
Total	$1,923,384

[3] *Report of the Controller of Currency* (1924), p. 92.

The purpose of a balance sheet is to show at a glance the financial condition of the institution. All of the debts, or obligations, of the bank are arrayed under the heading "liabilities," and all of the property of the bank, together with the debts and obligations owing to it, are grouped under "resources" or "assets." The liabilities of a stock savings bank are of two classes: those to the stockholders, and those to the creditors, or customers, of the institution. The stockholders' liabilities are classified under three headings: capital, surplus, and undivided profits. These items, taken together, represent the difference between the total amount of resources and the liabilities to the creditors; they thus represent the net worth of the business—what is owned by the proprietors.

Many accountants refer to these items as "proprietorship items," and do not list them among the liabilities; but since the financial statements of banks always include them as liabilities, we shall here follow the latter practice. The reason for classifying them as shareholders' liabilities may be understood, if one conceives of the banking corporation as a business entity to which the stockholders have intrusted their funds in the capacity of investors. Capital, surplus, etc., are thus owned, not by the bank, but by the individuals who have bought its certificates of stock. The stockholders have the shares as evidence of the obligation of the bank to them; and in turn the bank must enter on its books a statement of the amount of capital it owes to shareholders.

The origin and nature of the remaining items on the balance sheet may best be made clear if we proceed to organize a bank and work out by the use of entries on the balance sheet the nature of its operations as a going concern. Suppose we organize a bank with a capital of $100,000, to be derived from the sale of 1,000 shares of stock at $100 per share. The two original entries would be as follows:

RESOURCES		LIABILITIES	
Cash	$100,000	Capital stock . . .	$100,000

Many persons confuse the capital of a bank with its cash. The making of this balance sheet reveals at once the difference between them. Capital stock is a statement on the books of the bank of the amount that has been contributed by shareholders; and the entry of $100,000 under cash on the resources side is a declaration that the bank has $100,000 of cash in its vaults.

The meaning of surplus and undivided profits may also be made clear at this place. Let us assume that the stock, whose par value was $100 per share, was actually sold at $110 per share. The statement would then stand:

RESOURCES		LIABILITIES	
Cash	$110,000	Capital stock . . .	$100,000
		Surplus	10,000

The surplus is thus a statement that the stockholders have contributed more than the par value of the stock. The surplus may, however, also be increased from year to year through a policy of not disbursing all the earnings among the stockholders in the form of dividends. If, for instance, at the end of the year the directors of the bank should decide that $10,000 of net earnings should be retained in the business, the surplus would be increased by $10,000. This additional $10,000 would be represented on the resources side by cash or investments.

The undivided-profits item states the amount of accumulated earnings, aside from the surplus; and, like the other items, it is represented on the resources side by cash, or other assets. When dividends are declared and paid, the undivided-profits account is lessened by the amount of the dividend payment and cash is reduced by the same amount.

To return to the statement as it stands above, it is obvious that before we can engage in the banking business it will be necessary for us to have a building. Let us assume that we buy a building properly furnished and equipped for the purpose in hand at a cost of $35,000. A new statement of the bank's financial position would then read as follows:

RESOURCES		LIABILITIES	
Bank building, furniture and fixtures . . .	$ 35,000	Capital stock . . .	$100,000
Cash	75,000	Surplus	10,000

We now open the doors of the bank for business and make public announcement of the fact that we are ready to receive deposits; and in the course of a few weeks we receive $50,000 from individuals for deposit. The accounts would then stand as follows:

RESOURCES		LIABILITIES	
Bank building, etc. . .	$ 35,000	Capital stock . . .	$100,000
Cash	125,000	Surplus	10,000
		Deposits	50,000

In the course of time the following transactions are also concluded: (1) $10,000 is deposited by our bank in a large commercial bank in a nearby city, on which we are to receive 2 per cent interest; (2) the local post-office deposits with us $10,000 of postal savings; (3) $10,000 of United States bonds, $6,000 of state, county, and municipal bonds, $10,000 of railroad bonds, $10,000 of other public service bonds, and $24,000 of unclassified bonds and securities are purchased; (4) $20,000 of loans are made on real estate security; (5) $15,000 of loans are made on other collateral, mainly stocks and bonds; (6) $30,000 of other loans (unclassified) are made, mainly on the promissory notes of individuals; and (7) $5,000 is borrowed from another bank.

A financial statement of the bank's affairs would then stand as shown on page 313.

As a result of these operations it will be seen that the bank's cash has been very greatly reduced and that funds have been advanced through loans and the purchase of securities to governments and to the various types of private enterprise. In these operations we have accounted for nearly all of the items that appear upon the combined statement of the stock savings banks in the United States.

A word of explanation will indicate the origin of the other items. "Overdrafts" arise whenever a depositor is permitted to withdraw from the bank more than he has on deposit; there is thus no written promise to pay, and the transaction is bad banking practice. "Checks and other cash items" will become cash as soon as presented for payment to the banks or individuals upon which they are drawn. "Due to banks" is a statement of

RESOURCES		LIABILITIES	
Bank building, etc. . .	$ 35,000	Capital stock	$100,000
Due from banks . .	10,000	Surplus	10,000
United States bonds .	10,000	Deposits	50,000
State, county and municipal bonds . . .	6,000	Postal savings deposits .	10,000
Railroad bonds . . .	10,000	Bills payable	5,000
Other public-service bonds	10,000		$175,000
Unclassified bonds and securities	24,000		
Loans secured by real estate	20,000		
Loans secured by other collateral	15,000		
Loans unclassified . .	30,000		
Cash	5,000		
	$175,000		

deposits that have been made in this bank by other banks; the entry might be designated "bank deposit," in contrast with "individual deposit" and "postal savings deposit" accounts. The item "notes and bills rediscounted" shows that some of the notes which lie back of the unclassified loans on the resources side have been used by the bank as a basis for borrowing from other banks.

II. MUTUAL SAVINGS BANKS

While stock savings banks are located mainly in the Middle West, the mutual institutions are confined chiefly to the manufacturing centers and towns of the New England and eastern

states. The mutual, or trustee, savings bank does not possess any capital stock, the funds being derived solely from deposits. The depositors are thus the mutual owners of the bank. They do not receive interest on deposits; but the net earnings of the company are divided among them in the form of interest and profits. The mutual institutions are not managed by a board of directors elected by the stockholders, but by a body of non-depositing trustees, who usually hold office perpetually and who are actuated mainly by the desire to render a public service through the faithful discharge of a responsible trust.

The "guaranty savings bank" is a mongrel type.—The state of New Hampshire has what is known as the "guaranty savings bank," a combination of the mutual and stock institution. The guaranty savings bank accepts both regular and "special" deposits. The latter are in effect its capital stock. The mutual or regular depositors are paid a certain stipulated rate of interest, and any excess of earnings above this is available for dividends on the "special deposits." It is in this agreement to pay a stipulated rate of interest to mutual depositors that the guaranty savings bank differs essentially from the mutual institution. The term "guaranty" is derived from the fact that the special deposits comprise, like capital stock and surplus in a stock savings bank, a sort of guaranty fund for the general depositors, the earnings derived from the use of the special deposits being available for payment of interest to mutual depositors.

There follows on page 315 a statement of the total resources and liabilities of 613 mutual savings banks reporting to the Controller of the Currency in 1924.[4]

It will be noted that in the mutual banks investments are larger relatively to loans than in the stock banks, and that the volume of investments in state, county, and municipal bonds, railroad bonds, and public-service bonds is much larger relatively than in the stock institutions. Loans secured by real estate are proportionately much greater in the mutual institutions.

[4] *Op. cit.*, p. 94.

These differences are for the most part attributable to the differences in the legal regulations pertaining to investment in the eastern and western states.

COMBINED STATEMENT OF MUTUAL SAVINGS BANKS

RESOURCES

	(000 omitted)
Loans secured by real estate	$2,193,150
Loans secured by other collateral	17,690
Loans not secured	17,367
Loans not classified	1,547,539
United States bonds	1,167,455
State, county, and municipal bonds	611,602
Railroad bonds	1,008,853
Bonds of other public-service corporations	214,072
Unclassified bonds and securities	215,561
Banking house, furniture and fixtures	66,321
Other real estate	5,481
Due from banks	208,547
Checks and other cash items	1,272
Cash on hand	40,297
Other resources	49,449
Total	$7,364,656

LIABILITIES

Surplus	$ 558,786
Undivided profits	99,854
Due to banks	131
Individual deposits, subject to check	6,420
Individual time and savings deposits	6,686,366
Individual deposits not classified	460
Bills payable	248
Other liabilities	12,391
Total	$7,364,656

III. SAVINGS DEPARTMENTS IN COMMERCIAL BANKS

The mutual and stock savings banks are not the only savings institutions, for the commercial banks of the country also have

savings departments which have come to play a very important rôle in the raising of funds. Most state commercial banks, particularly in the South and West, have always received savings accounts to a greater or lesser degree; in many cases, indeed, it has been found that a so-called commercial bank does mainly a savings business. Trust companies, moreover, almost universally have savings departments.

The development of savings departments in national banks is a matter of the last twenty-five years; for until an important decision was rendered by the Controller of the Currency in 1903, there were only a few national banks that had savings departments, the majority of them believing that it was illegal to accept savings accounts. In answer to a question from a western banker whether a national bank could operate a savings department, Controller Ridgeley stated:

> There does not appear to be anything in the National Bank Act which authorizes or prohibits the operation of a savings department by a national bank. . . . . The expediency of the National Bank Association, organized for the purpose of doing the business of discount and deposit, engaging in the business of a savings bank is one for the determination of the Board of Directors.

Because of the strong competition for deposits among the different types of banks, the national institutions rapidly availed themselves of the privilege granted under this decision and established savings departments. By 1912 about 45 per cent of all national banks had taken action in this direction. The movement was further facilitated when the Federal Reserve Act of 1913 formally recognized the existence of savings departments in national banks and provided that a reserve of only 3 per cent need be kept against "time deposits." The growth of the savings business in national banks since then is shown by the following figures: on August 9, 1913, the aggregate of savings deposits was $820,000,000; on June 30, 1924, it was $4,239,208,000. This growth is obviously not entirely attributable to the general rise in prices that has occurred.

IV. POSTAL SAVINGS BANKS

The agitation for a postal savings bank system in the United States began as early as 1871, when the first postal savings bill was introduced into Congress. In the ensuing years about eighty bills for the establishment of a postal savings system were advanced, and the system was strongly advocated by eight different postmasters-general of the United States. It was not until 1910, however, that postal savings banks were finally established in this country.

The chief argument for the postal savings system was that it would stimulate saving among people in moderate circumstances, particularly the immigrant class, who either distrusted the regular savings institutions or found their facilities inconvenient or inadequate. The panic of 1907, which made it impossible for many of the savings banks to pay deposits on demand, greatly augmented the dissatisfaction with private savings banks and accelerated the movement for public institutions. The savings facilities of the country were not, in fact, evenly distributed, a large percentage of the savings banks being concentrated in a few states of the Union. In the South and West, particularly, opportunities for depositing money in savings banks were said to be quite inadequate, although those who made this statement usually overlooked the fact that state and national commercial banks, particularly the former, furnished facilities for savings. Nevertheless, it was widely believed that if the Post-Office Department should open offices in cities, towns, and villages not provided with adequate savings facilities, economy and thrift would be greatly promoted and funds which would otherwise be hoarded or sent abroad by immigrants for deposit in European postal savings banks would be made available for investment purposes in this country.

The main objection to the postal savings system was raised by a special interest, namely, the existing savings and commercial banks of the United States. These banks urged that the existing facilities were fairly adequate and that for the govern-

ment to invade the field of banking was an unwarranted interference with private initiative. As we shall see, the fear on the part of bankers that postal savings would lessen the volume of their deposits has been rendered groundless by certain provisions of the act designed to protect the regular savings institutions.

The following are the important provisions of the postal savings law:

An account may be opened and deposits made by any person of the age of ten years or more, in his or her own name, and by a married woman in her own name, and free from any control or interference by her husband; but no person may at the same time have more than one postal savings account.

Deposits will be accepted only from individuals and no account will be opened in the name of any corporation, association, society, firm, etc., or in the names of two or more persons jointly. No account will be made in trust for another person (as is the case in many foreign countries).

No person may ordinarily have a deposit account in excess of $2,500, exclusive of accumulated interest, except by special authorization of a board of trustees (an official board for the supervision of the system, composed of the Postmaster General, Secretary of the Treasury, and the Attorney General of the United States). With such authorization additional deposits may be accepted "not to exceed in the aggregate $1,000 for each depositor, but upon which no interest shall be paid."

No account may be opened for less than one dollar, nor will fractions of one dollar be accepted for deposit at any time.

The interest rate shall be 2 per cent on deposits which have remained for at least one year, and will be computed only from the first of the month following the day on which the deposit was made.

Postal savings deposits will be evidenced by certificates of deposit issued in the name of the depositor. These will be non-transferable and non-negotiable.

To enable any person to accumulate and deposit amounts less than one dollar, depository offices furnish free of charge postal savings cards to which ten-cent postal savings stamps may be affixed. Ten stamps will be accepted as a deposit of one dollar.

Any depositor may withdraw the whole or part of his funds by surrendering at the depository office the savings certificates properly indorsed. The postal savings funds shall be deposited by the postmasters in certain designated depository banks, which may be either national or state, savings or commercial banks. If no local bank has qualified in a particular town or locality, then the funds shall be deposited in a qualified bank

which is most convenient to such locality. The depository banks pay interest at 2½ per cent per annum on the funds received. No bank, however, is allowed to receive a total sum greater than its capital and half of its surplus.

Five per cent of the funds received by any depository bank shall be turned over to the board of trustees and be kept with the Treasurer of the United States as a lawful money reserve against postal savings deposits.

Before any bank is qualified to receive postal savings deposits, it must turn over to the board of trustees of the postal savings system public bonds or other securities approved by the board of trustees and deemed sufficient and necessary to insure the safety and prompt payment of such deposits on demand.

If at any time the postal savings deposits in any city exceed the amount which the qualified banks therein are willing to receive under the terms of this act, the board of trustees may invest all or any part of such amount in bonds and other securities of the United States. And if, in the judgment of the President of the United States, the general welfare and interest of the United States require it, the board of trustees may invest all or any part of the postal savings funds, except the reserve fund of 5 per cent, in bonds and other securities of the United States.

Any profits received by the Post-Office Department shall be covered into the Treasury of the United States as a part of the postal revenue.

The limitation of the account of any one depositor to $2,500 does not measure the full possibility for further utilizing the postal savings banks, for the law provides a means whereby individuals may purchase United States postal savings bonds paying 2½ per cent interest.

Any depositor may surrender his deposit or any part thereof in sums of twenty dollars, forty dollars, sixty dollars, eighty dollars, one hundred dollars, and multiples of one hundred dollars and five hundred dollars, and receive in lieu of such surrendered deposits, under such regulations as may be established by the board of trustees, the amount of the surrendered deposits in United States coupon or registered bonds of the denominations of twenty dollars, forty dollars, sixty dollars, eighty dollars, one hundred dollars, and five hundred dollars, which bonds shall bear interest at the rate of 2½ per centum per annum, payable semiannually, and be redeemable at the pleasure of the United States after one year from the date of their issue and payable twenty years from such date.

The results attained under the postal savings system have, on the whole, fulfilled the expectations of its advocates.—By the

end of the fiscal year 1913 there were 12,158 post-offices which were receiving postal savings. A great number of these, however, had very small accounts, and a considerable percentage of them have been discontinued. On June 30, 1924, there were 5,995 postal savings banks in the United States. Of this number 2,808 had deposits of less than $100; while 1,645 of them did not have a single dollar on deposit at the end of that fiscal year. It is thus evident that there are still too many small offices.

As was anticipated, the depositors in the postal savings banks are largely of the immigrant class. On September 26, 1916, 60 per cent of the 625,000 depositors were born outside the United States; and this 60 per cent owned three-fourths of the total deposits. It appears, also, that the proportion of foreign-born among the depositors has been increasing. The number of depositors in June, 1924, was 412,584 as compared with 674,728 in 1917. The total deposits stood at $132,814,135 in June, 1924, as against $167,323,260 in 1919.

The returns also show that the postal savings funds have come, as was again anticipated, largely from hoards and from accumulations that would otherwise have been sent abroad by our foreign-born inhabitants. It is interesting to note, also, that 87 per cent of the postal savings bonds purchased are in registered form and are presumably held as permanent investments.

V. THE MANAGEMENT OF SAVINGS INSTITUTIONS

The successful management of a savings bank depends upon the recognition of two main principles: first, that the loans and investments must be of a conservative type and widely distributed, both geographically and by industries; second, that a sufficient reserve of cash must be maintained to enable the bank to pay current bills and to meet the withdrawal requirements of those who have placed funds on deposit with the bank.

With a view to insuring the conservative management of savings institutions, legislation has been developed which prescribes the character of the loans and investments that may be

made and lays down provisions regarding the maintenance of reserves. These laws, however, vary widely in different states; and in some, mainly in the South and West, there is no legislation at all. The New York law, applying to mutual savings banks, has served as a model for many other states, and a summary of its provisions will therefore indicate the most approved form of savings bank legislation at the present time. The following are the types of investment that may be made:

1. In the bonds of the United States and New York state.

2. In the bonds of other states which have not defaulted within ten years.

3. In the municipal bonds of New York state municipalities.

4. In the bonds of any city in a state admitted to statehood prior to 1896, and which has not defaulted on any of its bonds since 1861. The debt of such a city, however, must not exceed 7 per cent of its assessed valuation.

5. In the first mortgages on real estate in New York state. Such mortgages must not exceed 60 per cent of the value of improved property or 40 per cent of the value of unimproved property.

6. In the first mortgage bonds of strong railroads which have paid for at least five years dividends at the rate of 4 per cent on their stock; but the stock must be at least equal in amount to one-third the debt of the road.

7. In the first mortgage bonds of railroads in New York on the same conditions. Not more than 25 per cent of the deposits shall be invested in railroad bonds and not more than 10 per cent in the bonds of any one road.

The provisions of this law do not permit, much less insure, a wide distribution of risks; emphasis is rather placed upon the necessity of "patronizing home industry." The distribution by industries is also somewhat restricted, owing to the emphasis that has necessarily been placed upon very conservative securities.

As a rule, mutual savings banks are not required by law to hold any minimum cash reserve; but interestingly enough a maximum reserve is usually named, on the theory that unnecessary reserves constitute idle money and that the trustees need to be discouraged from allowing funds to accumulate. The New York law, for example, provides that any mutual savings bank

may keep on hand, or on deposit with any national bank, New York state bank, or trust company an available fund not exceeding 20 per cent of its deposits. Stock savings banks, on the other hand, are in many states required to maintain a minimum reserve in specie, commonly from 5 to 10 per cent.

The maintenance of a proper reserve is the pivotal problem in savings bank management.—The cash reserve of a bank may be defined as the ratio of its cash resources to its deposit liabilities. For instance, in the final statement of the bank that we have organized above, the cash stands at $5,000 and the individual deposits at $50,000, giving a reserve of 10 per cent. The bank has thus committed itself to pay $50,000 to individuals, although it has at the moment only $5,000 in cash on hand. The ability of a savings bank to get on with a small cash reserve —it may, in fact, be much less than 10 per cent—depends in part upon the nature of the agreement with the depositors—whether the depositors are to be paid upon demand or only at the expiration of a thirty- or sixty-day notice of withdrawal; it also depends in part upon the readiness with which the bank can convert some of its assets into cash at a moment's notice or borrow the funds required from some other financial institution.

Legally, savings banks have the right to require from depositors a notice of withdrawal; and it is commonly said that savings banks do not need, therefore, to keep their resources in a form where they can be readily converted into cash. But in practice this right to demand a notice is nowadays seldom exercised. As an accommodation to the depositors, the savings banks early developed the practice of paying depositors on demand, whenever it was convenient for them to do so. The result was that the depositors soon came to consider that the savings bank informally agreed to return their funds whenever they were needed, notwithstanding the formal requirement that notice of withdrawal be given. The keen competition for deposits among savings banks gradually led to an all but universal abandonment of the practice of requiring notice of withdrawal, even though at

times it was not convenient for the savings banks to meet depositors' demands. The competition of commercial banks, who never have required notice of withdrawal, also aided in nullifying the withdrawal provision; for the typical depositor regards a bank as a bank and does not carefully distinguish between savings and commercial institutions. The following quotation from a prominent savings bank president indicates the prevailing attitude on the question of enforcing the provision that notice must be given before withdrawal:

> In the final analysis it is the ability to pay depositors on demand that constitutes good banking and inspires confidence. Your funds may be invested in securities of the highest order, your loans made with the greatest care, but if, whenever there is a depression, depositors are required to give notice of withdrawal, their confidence is shaken and they will eventually cease doing business with savings banks and deposit their moneys with institutions which will pay without notice.

Savings institutions now make many loans for working-capital purposes.—It has always been difficult in times of financial strain for savings banks to pay depositors on demand. Legislation often restricted investments to a very narrow range of securities—municipal securities, few of which are listed on the exchanges, and real estate mortgages having originally been the two chief types of savings bank investments. The difficulties encountered in time of financial strain finally led to an agitation for broadening the field of investments to include certain readily marketable securities, principally railroad bonds. While the agitation was successful, it was again found in the panic of 1907 that deposits could not be paid on demand.

Since the panic of 1907 the belief has steadily gained ground that savings banks should invest a considerable portion of their assets in short-time promissory notes of business men and in bank and trade acceptances, to the end that in time of strain they may be in a stronger position to acquire cash.[5] And the sav-

[5] We shall find, however, in connection with our study of commercial banking in succeeding chapters that assets of this sort do not, in fact, guarantee that the bank can withstand a heavy financial strain.

ings banks in recent years have, in fact, steadily expanded the volume of their short-time loans. The financial statements for stock savings banks, given above, show that the total advances made in the form of loans, exclusive of those on real estate, are nearly four times the total investments. While many of these loans are doubtless for fixed-capital purposes, a considerable, and an increasing percentage of them are for short-time purposes. Therefore, in the diagram on page 165 a line might well have been drawn from savings banks to the working-capital side of the corporation, for many of their loans to customers and all of their purchases of commercial paper and acceptances furnish funds for working-capital purposes.

It has been customary for writers on banking to state that it is the function of commercial banks to furnish funds for current needs, that is, for working-capital purposes, and of the savings banks to furnish permanent, or fixed capital. However true this statement may have been in the past, the bank statements on pages 309 and 315 show conclusively that, so far as savings banks are concerned, they are no longer institutions which specialize exclusively in the raising of funds for fixed-capital purposes.

VI. THE PROFITS OF SAVINGS BANKS

The profits made by mutual savings banks are derived from lending or investing the funds of the mutual depositors. The interest received, less the expenses of managing the institution, and whatever amount is kept in the business as surplus or undivided profits, is distributed to the depositors semiannually in the form of dividends. The dividend rates vary somewhat in different states, and they fluctuate within narrow limits from year to year in any given state or locality. On the whole, they may be said to average about 4 per cent. In 1924, the general average was 4.16; and in 1923, 4.11 per cent. The highest state average in 1924 was in Massachusetts, 4.58 per cent; and the lowest in the District of Columbia and in Pennsylvania, 3.00 per cent.

The profits of stock savings institutions are in part derived

from loans and investments of the funds contributed by shareholders, and in part from the use of the funds of depositors. The returns from the latter source may in a sense be said to represent the difference between the interest rate paid to depositors and the interest rate received on the bank's loans and investments. Such a statement does not, however, adequately disclose the nature of the problem of making a savings bank pay.

The stock savings institution must tie up a considerable proportion of its capital in building and equipment; it must incur no little expense in maintaining an official and clerical force, providing supplies, etc.; and it must keep a reserve of cash. In general it may be said that the funds contributed by the shareholders are largely absorbed in these ways—in providing as it were, a necessary foundation for the business of receiving deposits. Directly speaking, the profits are therefore derived from loans and investments of depositors' funds.

Let us assume that a savings bank has a capital of $100,000 and deposits of $1,000,000 and that the funds derived from shareholders are all absorbed in providing the building, maintaining a reserve, etc. If the bank pays 3 per cent interest on the $1,000,000 of deposits, and lends out $1,000,000 at 5 per cent, the profit would be 2 per cent, or $2 on every $100 of deposits; $2 on every $100 of deposits is equal to $20 on every $100 of capital stock, or earnings of 20 per cent. It will be seen, therefore, that the amount of dividends that may be paid on capital stock largely depends upon the volume of deposits.

VII. INSURANCE COMPANIES AS SAVINGS INSTITUTIONS

Discussion of the work of insurance companies is ordinarily approached from the standpoint of their primary function of affording protection to life and property. It is nevertheless commonly recognized that the savings feature of life insurance is very important. Have we not all been told times without number that an endowment policy is the safest investment in the world

and that the most certain way of making provision for old age is by taking out insurance? However accurate this statement may be, it is certainly true that the insurance company is performing a service that is identical with that of the ordinary savings bank; it is an intermediary between the individual savers and the borrowing enterprises of modern society.

The insurance company, moreover, assists in the raising of capital, even when the individual payers of premiums do not have in mind the savings feature of insurance. For all of the operations of each of the various types of insurance companies —life, fire, marine, etc.—result in the transfer of funds from individual savers to borrowers. Whatever the reason for taking out insurance, if the company is to make effective use of the premiums paid in, it is necessary to invest the funds so received. These investments always mean a transfer of funds from the individuals who furnish them to the corporations whose securities are purchased.

The insurance company is sometimes the only intermediary between the borrower and the saver of funds; and sometimes it is a secondary intermediary between the saver and the investment banks (see the diagram on p. 165). Besides making investments in securities, insurance companies make a great many short-time "policy loans" to the individuals whom they have insured, and thus play an important part in the extension of funds for temporary consumptive or productive needs.

The table on page 327 of the assets of American life insurance companies for the years 1914 and 1923 shows the nature of their loans and investments. During the war, life insurance companies, like all other financial and business institutions, purchased a great number of Liberty Bonds; but aside from this there has been no important change in the distribution of investments since 1914.

The assets of American fire insurance companies are not available for a similar exhibit. Because of the nature of their operations the total assets are, however, much smaller than those

of the life insurance companies. The American stock, fire, and marine insurance companies on December 31, 1923, had total assets of $1,267,369,667, while mutual fire insurance companies on the same date had assets of $221,658,587.

A consideration of the distribution of life insurance investments throws light upon the importance of these institutions in financing different types of business enterprise. It will be observed that investments in bonds are slightly in excess of loans on real estate mortgages. The mortgage loans of 148 life insurance companies, comprising 98¼ per cent of all such loans, were

ASSETS OF AMERICAN LIFE INSURANCE COMPANIES

	December 31, 1914	December 31, 1923
Real estate	$ 171,173,551	$ 243,058,192
Real estate mortgages	1,706,365,405	3,661,910,395
Bonds	1,981,751,698	3,815,846,046
Stocks	82,552,532	24,449,411
Collateral loans	20,351,766	23,506,342
Policy loans and premium notes	735,348,014	1,198,108,368
Cash	95,160,368	119,961,012
Deferred premiums	68,832,680	195,861,709
All other assets	73,716,779	171,919,318
Total admitted assets	$4,935,252,793	$9,454,620,793

divided between loans on farm property and other real estate in an interesting way. Seventeen companies made loans only on farm property; 15 only on real property in cities, towns, and villages; and 116 made loans on both farm and city properties. The amount loaned by the 17 farm loan companies was $12,827,709; by the 15 city loan companies, $426,260,163; and by the 116 companies lending on both farm and city property, $1,158,014,595. Of the total mortgage loans of these 148 companies, 39.03 per cent were in United States farms, 59.24 per cent on other real property in the United States, and 1.73 per cent on real estate mortgages of Porto Rico and foreign countries, mainly Canada.

The geographical distribution is also interesting. In the

eastern states the amount loaned on farms is negligible; in the central, northern, and southern groups farm loans rise to considerable totals; but it is in the southwestern and northwestern sections of the country that the great bulk of life insurance farm loans has been placed. On the other hand, the loans on city real estate, other than land, have mainly been placed in the populous commercial and manufacturing centers of the New England and Middle Atlantic states, which contain almost half of the total of such loans.

Insurance companies may keep very small cash reserves.—The cash reserves of insurance companies may ordinarily be very small for the reason that they have no deposits subject to withdrawal on demand. Payments are made whenever losses are sustained or whenever policies mature; and in the case of a large company these payments run in fairly uniform amounts and can be met out of current receipts. In the case of unusual losses, larger payments, of course, have to be made; but some time necessarily elapses while the company is making an investigation of the claim, and in the interval there is usually plenty of opportunity for the company to dispose of some of its investments. It is obviously necessary, however, to keep a fair proportion of the assets in readily marketable securities. This fact accounts for the large volume of bond investments shown in the foregoing table, as well as for the argument that they should invest in commercial paper and acceptances.

The growing practice of making loans to policyholders has given rise to a new reserve problem.—Policy loans are made in accordance with an agreement to lend a certain percentage of the surrender value of the policy at a fixed rate of interest at any time the insured desires such a loan. The growth of this practice has raised the question: In view of the agreement to make loans on demand, should not insurance companies, like the banks, be required to maintain a substantial cash reserve and to invest a portion of their assets in short-time commercial paper and acceptances?

In the absence of a reserve of cash or liquid assets, it is urged that insurance companies must rely in times of stress upon the commercial banks; and that they therefore serve to bring added pressure upon a severely strained credit structure. Since it is precisely in times of financial stress that "policy loans" are sought most largely, and since the marketing of securities involves the withdrawal of funds from commercial banks by the purchasers of securities, it is hardly to be denied that the lack of cash reserves in insurance companies imposes additional burdens upon the reserves of the banks.

In practice, there has been a growing tendency in recent years to keep both larger cash reserves and a large amount of readily marketable securities. To date, however, the insurance companies have shown little disposition to purchase short-term paper. Whether investments in commercial paper and acceptances would serve to relieve the strain that in time of crisis is now transferred by the insurance companies to the banks is a question which cannot be advantageously discussed at this place.

VIII. THE ECONOMIC SIGNIFICANCE OF SAVINGS INSTITUTIONS

In the foregoing pages we have described the different types of savings institutions in present-day society and considered the chief problems arising in connection with their practical operation. We may now consider in some detail the economic services that savings institutions perform in the modern economic system.

We have already seen that in the large the function of savings institutions is to assist in the raising of capital for modern business enterprise—to bridge the gap between the individual saver and the borrowing corporation or other enterprise. It will be pertinent to inquire now whether savings institutions are necessary middlemen; whether the function ascribed to them could not more efficiently be carried out without such financial intermediaries.

So far as their short-time loans are concerned—and we have found that savings banks, contrary to general belief, make large loans for working-capital purposes—it is clear that it would be practically impossible for corporations desiring to borrow funds for short periods of time to make connections with individual lenders. A financial intermediary, which can gather together small savings from a number of individuals and turn them over in large aggregations to corporations for short-time uses, is an indispensable institution. While the savings bank now performs an important rôle in this process, the commercial banks could doubtless readily assume the entire burden.

In the raising of fixed capital through the sale of securities, the case for the savings institutions is more conclusive, though not very obvious. It may be asked, Why should not the individual savers buy the securities directly, and thus receive 5 or 6 per cent instead of 3 or 4, as is the case when they deposit their funds in savings institutions and allow the savings banks to do the investing? We shall find that there are several reasons why it is better for many people to make savings deposits rather than to invest in securities directly.

Savings institutions facilitate the making of investments in numerous ways.—First, there are a great many people whose knowledge of investment values is so negligible that direct investment in securities involves the assumption of very great risks. It is true that they may nowadays avail themselves of the advice and counsel of investment bankers; but many people are not aware of this opportunity, or, if they are aware of it, they are unwilling or unable to establish connections with an investment banking house.

Second, the savings of a very large percentage of people are too small in amount to make direct investments in securities through the established channels practicable. While in recent years bond houses have been cultivating the small investor increasingly and are now offering "baby bonds" and "partial payment" plans as a means of inducing investments of small

amounts, they still remain essentially institutions which serve the upper rather than the lower strata of investors. One should ordinarily have several hundred dollars of savings before attempting to invest in securities. Savings institutions, however, do reach the smallest accumulations; they gather in even the penny savings of society and make them available in larger aggregations for the purposes of business.

Third, unless one has a considerable volume of savings, the problem of safe-keeping is a deterrent to bond investments. A safety-deposit box costs from three to five dollars a year; and if one has only a hundred-dollar bond, the interest is largely absorbed in paying for the safety box. The savings bank deposit, however, is taken care of by the bank.

Fourth, the savings bank method of effecting savings is generally more convenient than making direct investments in bonds. Savings institutions are usually located conveniently for the investor of small means and are kept open for business at hours which facilitate the making of deposits. Moreover, the making of a deposit is simplicity itself—merely handing the funds through a window and receiving an entry in a deposit book. The postal savings banks, as we have seen, offer still greater conveniences in this connection.

Fifth, a deposit in a savings bank can usually be more easily recalled in case of need than an investment in bonds. While this is not so true in the case of large investments, where the investors maintain close relations with bond houses and select their securities with a view to ready marketability, it is practiclly always true of small investments in securities. As we have seen, a savings bank deposit is ordinarily payable on demand and payable in full. A bond of small denomination very frequently cannot be quickly disposed of; and even bonds of large denomination may be marketed at a given time only at a loss.

Savings banks and insurance companies lessen the risks of investment.—More important than any of the foregoing services that are performed by savings institutions is the fact that they

enable one to lessen the risks of investment. No matter how excellent one's knowledge of the value of securities may be, there is always some risk of loss with any given security. And, in accordance with the theory of probability, the percentage of loss is always less, the wider the distribution of investments. This is simply an application of the old adage, "Don't put all your eggs in one basket." By virtue of its very large investments, the savings bank can always distribute its risks widely; while an individual can do so only if he is comparatively wealthy.

The mutual savings institutions are, in reality, nothing but a device for pooling the investments and the losses of the depositors, thereby lessening the risks assumed by each. The stock savings bank accomplishes the same result by a more roundabout process. Individuals turn their funds over to the bank and receive the promise of the bank to pay them in full; the bank diversifies its investments as much as possible in order to reduce the chances of loss. The resources contributed by the shareholders of the bank may also be drawn upon to prevent loss to depositors. The risks of loss to the individual are thus very greatly lessened.

The large insurance companies perhaps present the best examples of widely diversified risks. By virtue of their very great size, these companies are enabled to invest in bonds and securities of any number of corporations and in real estate mortgages on farms throughout the length and breadth of the United States, not to mention foreign countries. It is thus impossible for a large company to suffer a total loss, except in the event of a complete destruction of the existing economic order. A very small percentage of loss on the total investments is absolutely assured. In a word, every depositor in a large savings institution, and every person insured in a large insurance company, is in effect a part-owner of all the corporations, farms, etc., whose securities and mortgages have been purchased by the bank or insurance company, and his potential losses are thereby reduced to a negligible minimum.

A further word is in point with reference to the savings that are effected through life insurance companies. When one takes out life insurance, he places a premium, albeit a negative premium, upon making additional savings; for if one does not meet his payments as they mature, he stands to lose a part of the savings previously made. Since a large percentage of people are so constituted that they cannot resist the impulse to spend unless they have a heavy penalty hanging over their heads, savings through insurance is a most useful device for compelling people to make provision for the rainy day.

In the light of these considerations it is clear that the savings banks do perform important services as middlemen in the process of bringing borrowers and lenders together. The stock savings banks and the insurance companies are accordingly entitled to the difference between the interest which they pay on deposits and the interest which they receive from their loans and investments in securities. The various conveniences of savings institutions, and the reduction of risks that is afforded by virtue of the wide distribution of loans and investments, more than compensate the individual saver for the lower rate of return which he receives when he invests in savings institutions than when he invests in bonds. It may be observed, moreover, that no one is compelled to make investments through savings institutions; if one prefers he can secure the higher rate of interest by investing in securities directly.

Finally, the savings institutions, like the bond houses, assist to some extent in directing the flow of industrial energy. This is particularly the case with the stock savings banks of the South and West, whose investments are not circumscribed by legislation, as is usually the case with the mutual institutions of the East. Such savings institutions, as we have seen, invest directly in the securities of local and other enterprises and they make short-time loans to corporations and businesses, both at home and in other centers. In making these direct investments the savings bank officials must pass judgment upon the honesty and

integrity of the management and upon the ability of the borrowing enterprise to pay the loans at maturity. Like the bond-house analysts, they hold a veto power over the expenditure of funds for any given purpose; and in proportion as the judgment of savings bank managers is superior to that of the rank and file of savings depositors, the distribution of industrial energy is thus more efficiently directed.

QUESTIONS FOR DISCUSSION

I. THE DIFFERENT TYPES OF SAVINGS INSTITUTIONS

1. What is the essential difference between stock and mutual savings banks?
2. How does the guaranty savings bank differ from the mutual institutions? Has it any advantages over either the stock or the mutual bank?
3. Which class of savings banks is the more numerous? Which does the larger volume of business?
4. How do you account for the geographical distribution of mutual and stock savings institutions?
5. If you were organizing a savings institution, which type should you choose?
6. Do you see any good reason why a commercial bank should not accept savings deposits? Do you see any reason why the accounts of the savings department should be kept distinct from those of the commercial department?
7. Do you think that the postal savings institutions have filled a genuinely important need?
8. Were the objections to the development of the postal savings institutions well founded?
9. What provisions of the postal savings law are designed to eliminate competition with savings banks?
10. Does it seem to you probable that the postal savings institutions have on the whole been a source of gain to the banks? If so, how do you account for the failure of bankers to appreciate this in advance?
11. What is the purpose of permitting investments in postal savings bonds?
12. What is the purpose of authorizing the President of the United States, at his discretion, to require the board of trustees to invest all or any part of the postal savings funds in United States bonds and securities?
13. What is the purpose of requiring the depository banks to put up bonds?
14. How large is the reserve of postal savings banks?

15. Is there need for additional or better savings facilities in the communities with which you are familiar?

II. THE OPERATION AND MANAGEMENT OF SAVINGS BANKS

16. Define capital stock; surplus; undivided profits; shareholders' liabilities; balance sheet.
17. What is the net worth of the bank whose statement appears on page 313.
18. Indicate what changes in the items of the balance sheet of a stock savings bank would occur as a result of the following transactions:

    NOTE.—Method to be used: The purpose in this exercise is merely to show what assets or liabilities are increased or decreased as a result of each operation. It will facilitate matters, therefore, if the student merely uses the plus or minus symbol to indicate a change. For example, if deposits have been received, one should note that fact by marking on the liabilities side deposits + $1,000; or if cash has been paid out, one should mark on the assets side cash — $1,000.

    a) The bank receives $10,000 composed of the following items:
    (1) Specie, $100
    (2) Paper currency, $100
    (3) Checks on commercial banks, $5,000
    (4) Bank drafts, $3,000
    (5) Cashier's checks, $1,800

    b)
    (1) It makes investments of $20,000 in bonds
    (2) It makes $10,000 of loans secured by real estate
    (3) It buys 100 U.S. liberty bonds at $101.50
    (4) It buys 100 railroad bonds at 84⅝

    c) The bank deposits $10,000 in a commercial bank

    d) The bank, which has a capital stock of $100,000, a surplus of $50,000, and an undivided-profits account of $15,000, declares a semiannual dividend of 4 per cent.
19. A mutual savings institution with deposits of $100,000 has earnings for the half-year of $4,500. At what rate may a dividend be declared, and what would determine how much each person entitled to the dividend would receive?
20. Compare the percentage of loans to investments in securities in both stock and mutual savings banks.
21. Which way of using the funds of a savings bank would you consider preferable: in purchasing bonds and stock; or in making loans?
22. Draw up a list of the types of loans that you should consider it safe for a savings bank to make.
23. Criticize the provisions of the New York savings bank law.
24. Draw up a negative statement showing the types of loans and invest-

ments that cannot be engaged in under the New York law. Do you think it necessary to prohibit all such loans and investments?

25. What is the purpose of keeping a cash reserve? What factors will govern the amount of such reserve that must be carried?
26. How much is the average reserve, as shown by the combined financial statements given above, of the stock and of the mutual savings banks of the United States?
27. Do you think savings banks should attempt always to pay deposits on demand?
28. Why have savings banks tended more and more to make short-time loans for working-capital purposes?
29. Should savings banks adopt the principle of "safety first," or should they have in mind other things as well? If so, what?
30. If savings banks no longer require the notice of withdrawal, ought they not to be subject to the same reserve regulation as commercial banks?
31. How does a mutual bank make its profits? How does a stock institution make profits?

III. INSURANCE COMPANIES AS SAVINGS INSTITUTIONS

32. Show how life insurance companies promote savings, even when the purpose of taking out insurance is merely to secure protection.
33. Draw up a statement showing what types of business life insurance companies assist most in financing.
34. Do the insurance companies promote the raising of working capital as well as fixed capital?
35. What is the purpose of policy loans? Enumerate as many purposes as possible for which one might wish to borrow on a life insurance policy.
36. It is said that, because of the practice of loaning on policies on demand, the insurance companies should be required to keep a cash reserve. Do you agree?
37. Under what conditions would the greatest volume of life insurance policy loans be demanded? What is the result of this?

IV. ECONOMIC SIGNIFICANCE OF SAVINGS INSTITUTIONS

38. Draw up a statement indicating what groups of people find savings institutions an advantage.
39. Do you think savings institutions are as important now as before the development of the investment banks?
40. Will savings institutions always be necessary as a means of distributing the risks of investors of small means?
41. In which type of savings bank, stock or mutual, do you think the risks to the individual saver are smaller?

42. Do you think it is correct to say that the principal difference between a savings bank and a commercial bank is that one provides capital for long-time permanent needs and the other provides the current funds required by business enterprises?
43. Can you think of any good reason why savings banks should be organized as specialized institutions making loans and investments for only fixed-capital purposes?
44. What is the distinctive advantage of the insurance company in promoting savings?
45. Would you as soon do your savings through an insurance company as through a savings bank? How does the rate of return compare? How do the risks of loss compare?
46. Would you favor the abolition of savings banks on the ground that their functions can be as well performed by insurance companies and bond houses?

REFERENCES FOR FURTHER READING

Kemmerer, Edwin W.: *Postal Savings*, 1917.

Kniffin, William H.: *The Savings Bank and Its Practical Work*, 1916.

Hamilton, James H.: *Savings and Savings Institutions*, 1908.

National Monetary Commission: *Notes on the Postal Savings Bank Systems of the Leading Countries*, 1910.

Savings Banks Monthly Journal.

CHAPTER XVIII

THE PRACTICAL OPERATIONS OF THE COMMERCIAL BANK

With this chapter we pass to a consideration of the raising of the working, or operating, capital required by modern business enterprise. By reference to the charts on pages 163 and 165 it will be seen that individual firms, partnerships, and corporations borrow their working capital largely from commercial banks, using promissory notes and bills of exchange as evidences of the credit obligations involved.[1] The charts also indicate that to some extent this borrowing from commercial banks is done through commercial paper houses and commercial credit or discount companies, which act as intermediaries in the process. The remaining chapters of the volume will be largely devoted to a discussion of the functions of the financial institutions that are associated with the raising of working capital.

As has been suggested at various points in the preceding chapters, however, commercial banks also play an important rôle in connection with the raising of fixed capital. Indeed, the charts in chapter xi are designed to indicate that the commercial banks, including the Federal Reserve System, occupy a position of paramount importance in the entire financial structure. In studying the commercial banking system, therefore, it will be our purpose to reveal the manifold relations of commercial banking with the other parts of the financial system; and especially to show its significance to the general economic organization of modern industrial society. Several chapters will be required to work out these larger aspects of commercial banking. The present chapter is designed to lay the basis for an analysis of the

[1] See also the chart on p. 625.

significance of commercial banking by outlining the practical organization and operations of an individual commercial banking institution.

I. CLASSIFICATION OF COMMERCIAL BANKS

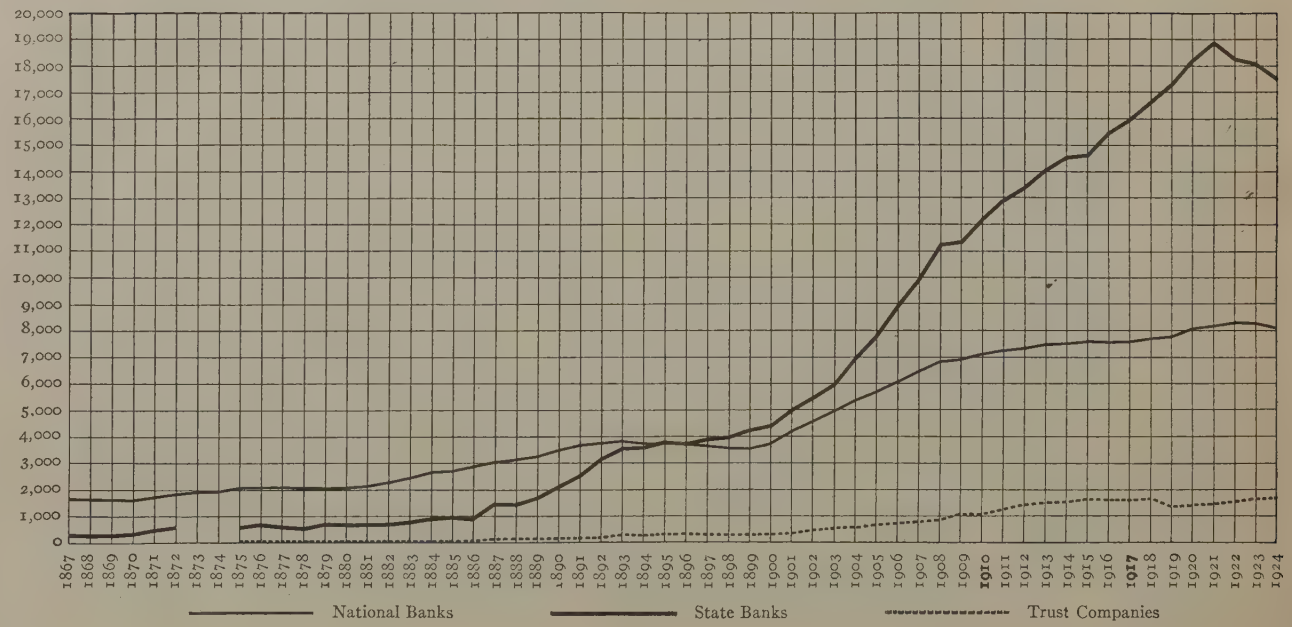
Before considering the nature of commercial banking operations, it should be pointed out that commercial banks are classified into national, state, and private institutions. A national bank, as the name indicates, receives its charter from the federal government; while a state bank receives its charter from the particular state in which it is located. It may be recalled that trust companies, chartered under state laws, usually operate commercial banking departments. Private banks, as the name implies, are unchartered institutions, conducting their operations without specific grant of authority. They have usually been subject only to those legal regulations which surround other private businesses; although in recent years most state laws have come to require that private banks submit to the same provision as incorporated institutions.

The existence of both national and state banks is merely the result of our dual form of government. And it would be distinction without significance, were it not for the fact that the regulations imposed on banking operations vary somewhat in the different states and that state legislation is typically somewhat less stringent than that of the federal government. While the nature of these regulations and the essential differences may best be reserved for subsequent discussion,[2] it will be of interest to observe at this place the relative number, size, and rate of growth of national and state banks. The national banking system was inaugurated during the Civil War by an act of 1863, with amendments in 1864. The accompanying diagrams indicate the development of banking in the United States from 1867 to 1924.

[2] For the nature of commercial bank regulations see chap. xxiii.

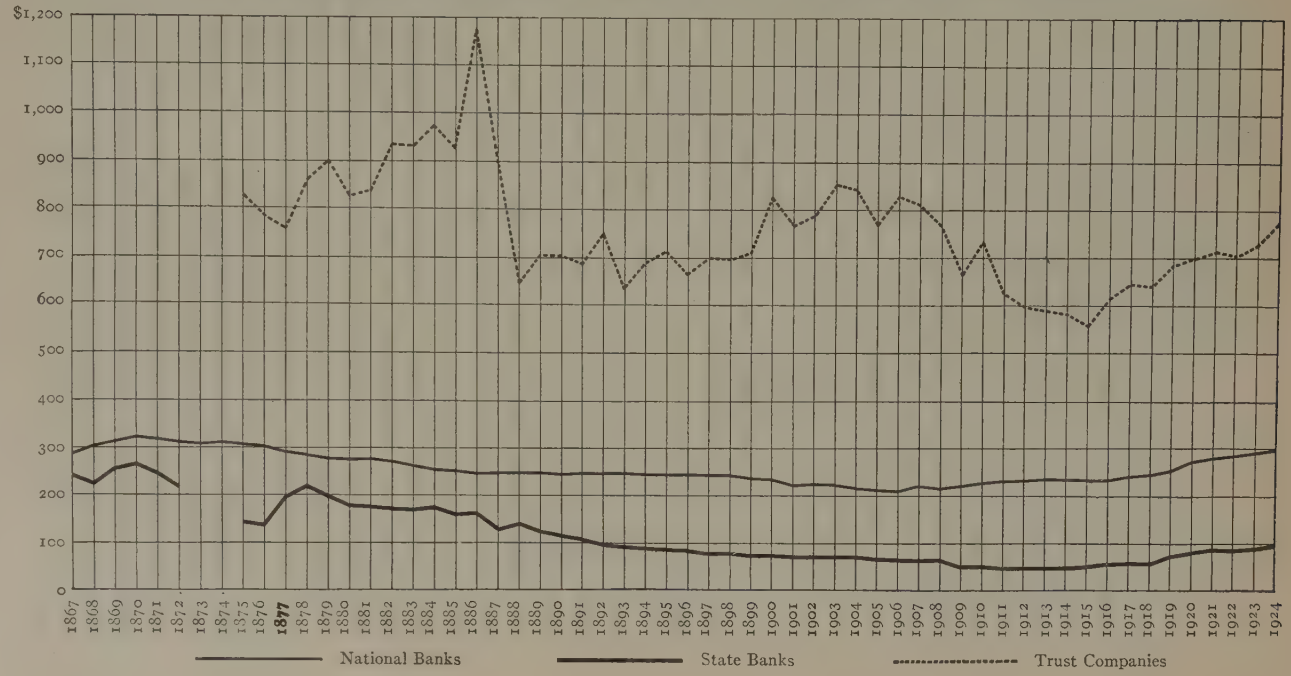
GROWTH AND IMPORTANCE OF COMMERCIAL BANKS AND TRUST COMPANIES

Number of National and State Banks and Trust Companies



GROWTH AND IMPORTANCE OF COMMERCIAL BANKS AND TRUST COMPANIES (*Continued*)

(000) AVERAGE CAPITAL (INCLUDING SURPLUS) OF NATIONAL AND STATE BANKS AND TRUST COMPANIES



II. INCIDENTAL SERVICES OF COMMERCIAL BANKS

Commercial banks perform a great variety of services, some of them being in the nature of incidental conveniences to individuals and businesses, and others of fundamental importance from the standpoint of the general economic system. The less significant ones may conveniently be disposed of at this place once and for all.

First, commercial banks serve as places of security for the keeping of funds that are temporarily not needed by their owners. Having well-equipped vaults, and being managed (with rare exceptions) by men of integrity, the risk of loss to the owner from fire, theft, or other contingencies is very greatly minimized.

Second, commercial banks serve as money changers. In accommodating each individual customer with the kinds and denominations of money desired, they supply the community as a whole with the forms of currency best adapted to its commercial needs. They perform this function in part through the issue of their own notes, and in part by acting as agencies of the government for its issues of paper currency, subsidiary silver, and minor coins.

Third, through the system of checks, or deposit currency, the commercial banks make possible the use of a form of currency which is a particularly convenient means of payment. A check may be written for odd amounts, as well as for even figures. This is a great economy of time, for it is a very simple matter to write a check for $27,965.29, whereas to count that amount of money, even if large denominations are used, requires no little time; and the risk of error in counting is at the same time of course eliminated. The use of checks rather than specie in the settlement of large transactions obviates the necessity of weighing and testing the fineness of metallic currency; and, similarly, it greatly lessens the possible abrasion of metallic money. Both checks and bank notes are also inexpensive media of exchange.

Fourth, the use of checks greatly reduces the risks of monetary transactions. Unless indorsed in blank, checks are good only in the hands of the person to whose order they are drawn; and accordingly the risks from possible loss or theft are virtually negligible.

Fifth, the check system greatly facilitates the keeping of accounts by individuals. Indeed, the banker may virtually take over the individual's bookkeeping; for if a person deposits with his bank all the money he receives in a year and makes all his payments by check, he always has an accurate record of his financial status. The statement rendered at the end of each month presents a record of all funds received and all funds paid out, and shows the balance on hand. The canceled checks, moreover, serve as valid receipts for the payment of obligations.

Sixth, the commercial banks perform important services for individuals in transmitting money from one part of the country to another. Upon receipt of the necessary funds, the bank draws a draft upon a correspondent bank in the city where the payment is to be made, asking it to pay the designated party a specified amount of money. Settlements between the two banks may be made only periodically; and by virtue of the machinery of domestic exchange already discussed (see pp. 150–51), cash seldom moves in the transmission of such funds. The risk of loss or theft is of course reduced to a minimum, and the use of specie is economized by lessening the amount that needs to be in transit. Banks perform a similar service for individuals in cashing checks which are drawn on banks in other localities. The work of banks in effecting international exchanges should be recalled in this connection.

Seventh, bankers act as collection agents for their customers, for promissory notes, drafts, coupons, etc. At or before maturity, the individual turns his credit instrument or claim over to the bank for collection. Upon receiving the funds, through its messenger service or by way of correspondent banks, the bank credits the individual's account with the amount received. If the

obligation is not paid, the individual is notified and the bank officials are in a position to serve as witnesses in proof that the claim has been duly presented.

Eighth, bankers undoubtedly exert a very great influence in the promotion of financial integrity and business ability. In the protection of their own interests banks always pay close attention to the moral character and the ability of the parties with whom they deal. They inquire whether they be honest or tricky, industrious or idle, able or efficient, prudent or speculative, thrifty or prodigal. Since the banker is used as a continual reference to one's "respectability" and to one's honesty and punctuality in meeting pecuniary engagements, it is necessary for individuals always to have regard for such considerations and to qualify as well as may be for the good opinion of the banking fraternity.

These various services are only the simpler ones performed by the commercial banks. Their functions in connection with the issue of bank notes and the creation of bank credit or deposit currency remain for later consideration. It need merely be stated here that it is these functions, particularly the latter in modern times, which constitute the distinguishing characteristics of commercial banking; they are what give it its paramount importance in the general economic organization of the modern world.

III. ANALYSIS OF COMMERCIAL BANKING OPERATIONS

The nature of commercial bank operations, like those of savings banks, may best be revealed through an anlysis of a balance sheet or financial statement of condition. Indeed, only by employing the technical terms used in commercial banking and by working through in concrete fashion on a balance sheet the effects of practical banking operations, can one obtain a clear understanding of the nature of commercial banking. The two financial statements shown—the one of a very large national

bank, and the other of a small state institution—will be found to furnish most of the data necessary to the analysis which follows:

CONTINENTAL AND COMMERCIAL NATIONAL BANK OF CHICAGO[3]

RESOURCES

1. *a*) Loans and discounts, including rediscounts, acceptances of other banks, and foreign bills of exchange or drafts sold with indorsement of this bank (except those shown in *b*) and *c*)	$251,079,726.34	
b) Acceptances of other banks discounted	1,011,707.65	
c) Customers' liability account of acceptances of this bank purchased or discounted by it	7,773,516.32	
Total loans		$259,864,950.31
2. Overdrafts, unsecured		14,833.52
3. *a*) Customers' liability account of "Acceptances" executed by this bank and by other banks for account of this bank, and now outstanding	$1,868,916.53	
b) Liability of foreign banks and bankers for drafts and bills accepted by this bank to create dollar exchange, and now outstanding	19,800.00	1,849,116.53
4. U.S. government securities owned:		
a) Deposited to secure circulation (par value)	$50,000.00	
b) All other United States government securities (including premiums, if any)	42,733,984.00	
Total U.S. securities		42,783,984.00

[3] Report of condition at the close of business on April 6, 1925.

	Securities bought under agreement to repurchase		259,844.09
5.	Other bonds, stock, securities, etc.		18,746,611.43
6.	Banking house		7,900,000.00
8.	Lawful reserve with Federal Reserve bank		46,081,515.03
9.	Items with Federal Reserve bank in process of collection		3,699,178.05
10.	Cash in vault and amount due from national banks		32,890,892.98
11.	Amount due from state banks, bankers, and trust companies in the United States (other than included in Items 8, 9, and 10)		21,420,936.87
12.	Exchanges for clearing house		18,380,246.10
13.	Miscellaneous cash items		501,966.64
14.	Redemption fund with U.S. Treasurer		2,500.00
15.	Other assets		7,639,400.38
	Total resources		$462,035,975.93

LIABILITIES

16.	Capital stock paid in		$25,000,000.00
17.	Surplus fund		15,000,000.00
18.	Undivided profits		6,194,631.07
19.	Reserved for taxes, interest, etc., accrued		2,066,856.98
20.	Circulating notes outstanding		50,000.00
21.	Amount due to national banks		63,932,134.98
22.	Amount due to state banks, bankers, and trust companies in foreign countries		86,148,060.04
23.	Certified checks outstanding		4,190,076.58
24.	Cashier's checks outstanding		1,865,332.75
25.	Demand deposits (other than bank deposits payable within 30 days):		
	a) Individual deposits subject to check	$211,581,799.13	
	b) Certificates of deposit due in less than 30 days (other than for money borrowed)	9,168,005.84	
	c) Dividends unpaid	158,614.00	
	Total demand deposits		$220,908,418.97
26.	Time deposits subject to reserve (payable after 30 days, or subject to 30 days' or more notice, and postal savings):		
	a) Certificates of deposit (other than for money borrowed)	4,431,122.45	
	b) Other time deposits	16,175,861.28	
	c) Postal savings deposits	474,760.37	
	Total time deposits		$21,081,744 10

27. United States deposits (other than postal savings), including war-loan deposit account and deposits of United States disbursing officers		12,917,587.09
28. Notes and bills rediscounted, including acceptances of other banks and foreign bills of exchange or drafts sold with indorsement of this bank		33,920.75
29. Letters of credit and travelers' checks sold for cash and outstanding		512,418.04
30. *a*) "Acceptances" executed by this bank for customers, and to furnish dollar exchange	$9,318,575.99	
b) Less acceptances of this bank purchased or discounted (see Item 1*c*)	7,773,516.32	
		1,545,059.67
31. Acceptances executed by other banks for account of this bank		476,009.69
32. Liabilities other than those above stated		113,725.22
Total liabilities		$462,035,975.93

PEOPLES-EXCHANGE BANK (PIEDMONT, MO.)[4]

RESOURCES

Loans and discounts undoubtedly good on personal or collateral	$93,166.41
Loans, real estate	64,932.53
Overdrafts	1,426.18
Bonds	3,150.00
Real estate (banking house)	3,885.09
Furniture and fixtures	1,900.00
Due from other banks and bankers subject to check	12,000.11
Cash items	1,461.06
Cash on hand (currency, gold, silver, and other coin)	8,856.69
Other resources:	
County and school warrants	12,185.76
In transit for collection	1,030.60
Total resources	$203,994.43

[4] Report of condition at the close of business on July 10, 1924.

LIABILITIES

Capital stock paid in	$45,000.00
Surplus fund	3,500.00
Undivided profits, net	606.23
Individual deposits subject to check	70,724.09
Time certificates of deposit	84,164.11
Total liabilities	$203,994.43

Following the method used in the chapter on savings institutions, let us organize a commercial bank and carry through a series of practical operations. We may start by issuing 10,000 shares of stock which sell at $110 per share. After spending $100,000 for a bank building and the necessary furniture and fixtures, the preliminary statement of the bank would stand as follows:

RESOURCES		LIABILITIES	
Cash	$1,000,000	Capital stock	$1,000,000
Banking house, furniture, and fixtures	100,000	Surplus	100,000

Commercial bank deposits are mainly a result of lending operations.—The essential difference between commercial and savings bank operations may best be made clear if we consider at the outset the loan item on the assets side of the balance sheet, together with the deposit item on the liabilities side. When the savings bank was ready for business, we saw that individuals brought funds to the bank for deposit, thus giving rise to deposit accounts on the liabilities side of the statement. Commercial banks also receive deposits of cash; but the striking characteristic of commercial banking will be seen most clearly if we first assume that when this bank which we have organized opens its doors for business it does not solicit deposits of cash, but merely states in its preliminary announcement that it is in a position to make loans to manufacturers, merchants, etc.

Suppose now that a number of business men come to the bank for loans with which to conduct their business operations. Mr. A is given a loan of $100,000 for four months, the interest

at 6 per cent being deducted in advance. What changes, immediately speaking, would this cause on the bank's balance sheet? On the assets side an entry would be made, under the heading "Loans and discounts," of $100,000. Mr. A is entitled to withdraw from the bank $98,000, the other $2,000 being the amount of the interest deducted in advance. A may withdraw the $98,000 in actual cash if he desires; or if he finds it more convenient, he may ask the bank to enter it to his credit as a deposit account against which he may write checks at his convenience. In the great majority of instances, indeed almost universally nowadays, when business men borrow from banks they take the entire amount in the form of a checking account, except, of course, in so far as they may require pay-roll or till money. Let us assume in this case that the entire amount is taken in the form of a checking account. The balance sheet, for the moment, will then stand as follows:

RESOURCES		LIABILITIES	
Loans and discounts .	$ 100,000	Capital stock . . .	$1,000,000
Banking house, furniture, and fixtures . . .	100,000	Surplus	100,000
Cash	1,000,000	Deposits	98,000
		Undivided profits . .	2,000
Total	$1,200,000		
		Total	$1,200,000

It is thus apparent that this commercial bank has created a deposit account without the receipt of any actual cash—merely as a result of a loan operation. But suppose now that Mr. A. writes a check for $98,000 in favor of Mr. X. Suppose, also that Mr. X, another business man in this community, desires to be a customer of this bank. Upon receipt of the check, Mr. X presents it at the bank and asks that an account be opened in his name, with the $98,000 credited to the account. The result of this operation, so far as deposits are concerned, would be merely to deduct $98,000 from Mr. A's account and add $98,000 to Mr. X's account. The total deposits in the bank would be unchanged. While X's deposit account came over the counter in

the form of a check presented to the bank, it is obvious that it is still *indirectly* the result of the loan that was made to A. No cash has as yet been brought to the bank; nor has any been paid out.

Mr. X, however, now has the right to withdraw $98,000 in cash from the bank, if he so desires; but since it is more convenient in the great majority of instances to meet his obligations by means of checks, he will probably have occasion to withdraw little, if any, cash. Let us assume that Mr. X writes four checks of $24,500 each to M, N, O, and P, respectively. M, N, O, and P, desiring to do business with this bank, in turn present the checks for deposit. The net result is to leave the total of deposits unchanged; though instead of being credited to X, the deposits are now credited to the accounts of M, N, O, and P—$24,500 to each. In their turn, M, N, O, and P may write checks against their deposit accounts, for varying amounts and to the order of various people. If all the people receiving such checks in turn present them to this bank for credit to their accounts, it is obvious that, while there will be an ever changing personnel of depositors, the total of deposits will remain at $98,000.

Now in practice not every business man would desire to bank with this particular institution, and not everyone who did keep his account there would always refrain from withdrawing any cash. Suppose, for instance, one of these checks comes into the hands of Z and that Z is a depositor in another bank in the same city. Z will take the check to the other bank and there deposit it to his credit. But if bank No. 2 gives Mr. Z a deposit account of, say, $10,000 upon the presentation of a check on bank No. 1 for that amount, it is obvious that bank No. 2 must collect that amount from bank No. 1. While we shall later see that as a rule this does not ordinarily involve parting with much cash by bank No. 1,[5] for the present it is important merely to note that, even though some of the checks drawn against the deposit accounts in bank No. 1 are presented to other banks, the

[5] See pp. 458-60.

total deposit accounts resulting from the original loan remain unchanged. Unchanged, except, of course, in so far as cash may be actually withdrawn from some bank by some individual into whose hands a check has come. If, for example, Mr. Y elects to cash a check for $10,000 that has been drawn against bank No. 1, he would of course not receive a deposit account; but on the assets side cash would be reduced by $10,000.[6]

Commercial banks also receive deposits of cash and of claims to cash.—Let us now carry through some additional operations with this newly organized national bank. It has already been stated that in practice commercial bank deposits also arise as a result of the bringing of cash to the bank by individuals. Let us assume that a customer desires to open a checking account with the bank. He presents through the paying teller's window the following things: (1) $1,000 in cash; (2) $1,000 in checks on other banks which are members of the Clearing House Association; (3) $2,000 in checks on other banks in this town, not members of the Clearing House Association; (4) $2,000 in checks on banks in other cities; (5) $3,000 in certified checks on this bank; (6) $3,000 in cashier's checks on this bank; and (7) $4,000 in drafts on correspondent banks. The depositor will have entered to his credit as a deposit the sum of these items, or $16,000. On the assets side, the cash would be increased by $1,000 and the remaining items would find reflection on the balance sheet under the headings: exchanges for the clearing house; checks on other banks in this city; checks on out-of-town banks; and due from banks and bankers. On the liabilities side, the cashier's checks outstanding would be decreased by $3,000, and the certified checks by a like amount.

Investments in securities are analogous to loans.—Let us suppose the bank makes investments of $50,000 in Liberty Bonds and $20,000 in other bonds. These items on the assets side of the balance sheet would of course be increased by the amounts

[6] A more complete explanation of the process of creating deposits here suggested and the general significance of this phenomenon must be reserved for subsequent discussion (see pp. 457–64).

specified; and the individual, government, or corporation from which these bonds were purchased could either ask for payment in actual specie or take a deposit account with the bank, against which checks might be written at will. The process here is identical with that discussed above in the case of loans.

Issuing notes is an important feature of national bank operations.—Another type of banking operation is that of note issue—an operation which at the present time is confined to the national banks. The process of issuing notes may best be stated as an analogy to the process of creating deposits through the making of loans. An individual who secures a loan from the bank may be paid by an issue of bank notes as well as by the taking of a deposit account. Under our banking laws, however, an issue of notes must have a special form of security. If a bank wishes to make an issue of $1,000 worth of bank notes, it must first deposit with the United States Treasury $1,000 worth of government bonds.[7] The Treasury then prepares the notes and sends them to the bank, where they must be signed by the proper officials before being issued. Thus, every note outstanding is backed dollar for dollar by government bonds in the vaults of the United States Treasury as trustee, and in addition by the resources of the bank, against which the notes have a prior lien. It is also required that the bank deposit in the Treasury at Washington a cash reserve fund of 5 per cent, to be used in the redemption of any notes that may be presented there for payment, the law making them redeemable at par by the United States government.

National bank notes do not possess full legal tender power.—Such notes are a direct liability of the bank which issues them and they are redeemable in cash upon demand at the bank of issue as well as at the federal Treasury. Every bank in the national system must also accept at par the notes of every other

[7] The law holds that if the bonds are worth more than par, notes can nevertheless be issued only to the par value of the bonds, and that, if the bonds are worth less than par, the amount of notes must not be in excess of the market value of the bonds.

national bank; and such notes are also receivable at par in payments to the United States government, except for duties on imports. The government, moreover, may use them in paying all of its obligations, except interest on the public debt and in the redemption of other national bank notes. National bank notes, however, have never been made legal tender in the settlement of private accounts.

The issue of notes has been declining in importance during the last fifty years.—The issue of bank notes was once the chief method of making loans by commercial banks; and in the nations of Continental Europe it is still the most important means of extending credit. But in Engand and the United States, bank-note issues have in the last hundred years steadily declined in importance. The table on page 354 reveals the changes in the relative proportion of notes and deposits in different classes of national banks in the last fifty-five years. It will be seen that the relative importance of note issue has been growing less in all classes of banks; and that its significance varies inversely with the size of the financial center in which the issuing bank is located. A word of explanation of this classification of national banks is necessary. The national banking law divided the national banks of the country into three classes: first, those in central reserve cities, namely, New York, Chicago, and St. Louis;[8] second, those in reserve cities, which constitute about sixty of the remaining larger cities of the country; and third, country banks, which include all those not located in central reserve and reserve cities.

Of the remaining items on the balance sheet on pages 345–47 a few words of explanation will suffice. "Acceptances of other banks discounted" and "Customers' liability on account of acceptances" will be clear after reading the discussion of bank acceptances below.[9] This latter item should be compared with "Acceptances of this bank purchased or discounted" which ap-

[8] In 1922 St. Louis was shifted to the "reserve city" class.

[9] See pp. 578–80.

pears on the liabilities side; they are the opposite sides of the same transactions.

"United States government securities deposited to secure circulation" has already been explained. It should be compared with the item, "Circulating notes outstanding," on the liabilities side of the balance sheet.

"Items with Federal Reserve bank in process of collection" refers to checks which this bank has received from its depositors

DECLINING IMPORTANCE OF NOTE ISSUES*

(In Millions of Dollars)

Year	New York City		Other Central Reserve and Reserve Cities		Country Banks		Totals	
	Notes	Deposits	Notes	Deposits	Notes	Deposits	Notes	Deposits
1870.....	32.9	167.0	68.4	134.7	190.5	199.7	291.8	501.4
1875.....	18.3	173.5	69.4	197.9	230.7	293.2	318.4	664.6
1880.....	18.6	242.0	72.4	234.3	226.4	397.2	317.4	873.5
1885.....	9.9	250.5	55.3	302.1	203.7	549.8	268.9	1,102.4
1890.....	3.6	251.4	15.1	469.6	104.2	843.8	122.9	1,564.8
1895.....	14.3	209.7	32.7	509.3	135.4	892.7	182.5	1,701.7
1900.....	29.3	420.7	63.7	775.2	190.9	1,312.3	283.9	2,508.2
1905.....	53.7	657.7	120.4	1,086.5	294.9	2,076.5	459.0	3,820.7
1910†.....	49.0	962.5	191.6	2,134.7	449.3	3,108.8	680.4	6,206.0
1915†.....	37.3	849.1	204.1	1,621.0	477.1	2,171.4	718.5	4,641.5
1920†.....	37.0	2,085.0	181.9	3,634.9	469.5	4,500.0	688.4	10,219.9
1924†.....	39.4	1,948.4	180.2	3,539.1	510.2	4,105.0	729.8	9,593.3

* From *Statistics of Banks and Banking in the United States, 1867–1909* (National Monetary Commission, 1910).

† From *Annual Reports of the Controller of Currency.*

which the Federal Reserve Bank of Chicago is collecting from the banks upon which they are drawn. The "Lawful reserve with the Federal Reserve bank" is the amount of funds which the law requires this bank to keep on deposit with the Federal Reserve Bank of Chicago.[10] The items, "Amount due from national banks" and "Amounts due from state banks, bankers, and trust companies," indicate that this bank has funds on deposit with other banks. These items should be compared with "Amounts due to national banks" and "Amounts due to state banks, etc." on the liability side. It will be noted that the items

[10] See reserve requirements under Federal Reserve System, pp. 567–68.

"Due to banks" in the Continental and Commercial National Bank statement are much larger than the items "Due from banks." The banks in the central reserve and reserve cities characteristically hold large volumes of funds for outlying banks; but it is necessary for them to have some of their own funds deposited in other centers, also, to facilitate financial operations in such centers.[11] On the other hand, the Peoples-Exchange—a "country" bank—holds no deposits for other banks, but has a considerable sum on deposit with correspondent banks in larger centers.

"Redemption fund with United States Treasury" is 5 per cent of the "Circulating notes oustanding," in accordance with the legal requirements already outlined.

On the liabilities side, the item, "Reserved for taxes, interest, etc., accrued," indicates that preparation is being made for meeting the tax bill, etc., by creating a reserve for the purpose. When payments are made for these expenses, this item will decrease and there will be a corresponding reduction in cash on the assets side.

Deposits are divided into "Demand deposits" and "Time deposits." "Demand deposits" are subdivided into "Individual deposits subject to check," "Certificates of deposit due in less than thirty days," and "Dividends unpaid." The "Individual deposits subject to check" are the ordinary checking accounts of individuals and businesses. The "Certificates of deposit" represent deposits which cannot be checked against and can be withdrawn only by the presentation of certificates, which are receipts for the funds deposited. "Dividends unpaid" represent dividends declared by the Board of Directors but not yet paid to the stockholders. "Time deposits," consisting of "Certificates of deposit," "Other time deposits," and "Postal savings deposits," are listed separately because of separate reserve requirements. "United States deposits" are deposits of the United States government against which no reserve need be carried.

[11] See discussion on pp. 451–52.

IV. ANALYSIS OF COMMERCIAL BANK LOANS

Since a commercial bank's profits are mainly derived from loans and investments, the test of efficient bank management is to be found in the wisdom with which such extensions of credit are made. The making of loans and investments by commercial banks is a matter of exceptional importance, moreover, by virtue of the fact that these institutions are by their very nature committed to paying depositors upon demand. If a bank has insufficient funds on hand with which to meet demands for cash and if it is unable to secure them from any source, it must close its doors and announce insolvency, notwithstanding the fact that ultimately its assets may prove ample to meet the claims of depositors in full. Since the entire modern business structure is dependent upon the smooth functioning of financial institutions, commercial banks are in a position of exceptional responsibility. They are the final repositories of the cash resources of the nation; and upon the efficiency of their operation depends the safety, as well as the adaptability to the needs of business, of the whole complex credit structure. Bank failures and bank suspensions of specie payments, due to inadequate cash reserves, always bring in their train more or less disaster to business in general. Accordingly, the development of a "loan policy" is the most vital problem of bank management.

In the making of bank loans there are two main problems. First, there must be assurance that the borrowers are in sound financial position—that the loans will surely be safe. Second, the maturities of loans must be arranged so as to facilitate meeting the varying demands for cash at different times and at different seasons. We shall presently see that the problem of maintaining adequate cash resources with which to meet these varying needs largely depends, in a highly developed banking structure, upon interbank relations, upon the organization of the banking system as a whole. But since the individual bank is the unit of the system, we may best begin our study by a considera-

tion of the various types of lending operations that are engaged in by the typical commercial banking institution.

There are several types of bank loans.—The ordinary commercial bank has the option of lending funds (extending credit) in the following ways: (1) on single-name promissory notes of individuals and corporations; (2) on two-name paper—indorsed notes and accepted drafts (trade acceptances); (3) on the security of real estate mortgages; (4) on promissory notes secured by other notes as collateral; (5) on promissory notes secured by stocks and bonds; (6) on drafts secured by bills of lading; (7) on promissory notes and drafts secured by warehouse receipts; (8) by investments in stocks, bonds, short-term notes, mortgages, etc.

Loans may also be classified according to whether they are time loans (thirty, sixty, ninety days, or more) or demand loans. Demand loans are of two types: (1) the so-named "call" loans, where the loan is of indefinite duration but terminable at a moment's notice at the option of either the bank or borrower; these are found chiefly in New York City, and are used in connection with stock market speculation;[12] (2) demand loans, where it is understood that the bank will allow the loan to run indefinitely, in the absence of any untoward development which might imperil its ultimate safety. Such a loan is in effect ordinarily terminable only at the option of the borrower.

The table on page 359 shows the different classes of loans made by the national banks on June 30, 1924.

Another classification of bank loans—one which runs in terms of the use to which the funds borrowed are to be devoted—is that of *commercial* and *investment loans*. Commercial and investment loans present no new phenomenon to the reader; for they have already been discussed in chapter vii under commercial and investment credit. It may merely be recalled here that commercial loans are used for working-capital purposes.

[12] At the present time, Philadelphia has a call loan market, but it is relatively unimportant.

Whether with producer of raw materials, manufacturer, commission merchant, wholesaler, or retailer, the funds borrowed are employed in meeting pay-roll requirements or in buying the materials or goods required in the operation of the business. They usually run for short periods by virtue of the fact that the time required to carry to fruition the productive process in which they are assisting is ordinarily of relatively short duration.[13]

With investment loans, on the other hand, the funds are devoted to fixed-capital purposes; hence such loans are usually of relatively long duration. In the course of our analysis we shall have occasion to show that the commercial banks furnish funds for fixed-capital purposes in various ways—some of them direct, others indirect. We shall also have occasion, in a succeeding chapter, to consider the relative liquidity of the various types of investment and commercial loans. For the present, however, we are merely concerned with describing the different types of commercial bank loans and showing the uses to which the funds thus borrowed are devoted.

1. *Single-name borrowing.*—Borrowing on the single-name promissory notes of individuals or corporations has come to be one of the most common means of obtaining loans in the United States. The reason for this has already been suggested in the chapter on commercial credit instruments.[14] Such borrowing may or may not be for working-capital purposes, though in practice it is in the great majority of cases of a general commercial nature. It is often assumed that a loan made on a single-name promissory note, unsecured by collateral, must in the nature of things be less satisfactory from the standpoint of safety than two-name or collateral paper. We shall find, however, that this is by no means the case. In fact, single-name paper is on the whole just as safe as any other.

[13] We shall later see, however, that commercial loans are not so commonly paid at maturity as is generally assumed. See pp. 509–11.

[14] See p. 126.

As between single-name paper and indorsed notes, it may be observed that loans for business purposes are seldom obtained by business man A on the accommodation indorsement of busi-

CLASSIFICATION OF NATIONAL BANK LOANS, JUNE 30, 1924*

(In Thousands of Dollars)

	New York	Chicago	Total Central Reserve Cities	Other Reserve Cities	Country Banks	Total United States
On demand, paper with one or more individual or firm names (not secured by collateral)	41,314	34,255	75,569	219,111	442,879	737,559
On demand, secured by stocks and bonds	537,209	127,286	664,495	467,833	413,297	1,545,625
On demand, secured by other personal securities including merchandise, warehouse receipt, etc.	44,781	31,101	75,882	100,654	87,082	263,618
On time, paper with one or more individual or firm names (not secured by collateral)	873,387	277,098	1,150,485	1,852,649	3,120,470	6,123,604
On time, secured by stocks and bonds	344,407	73,209	417,616	519,079	623,003	1,559,698
On time, secured by other personal securities, including merchandise, warehouse receipts, etc.	81,464	45,736	127,200	343,091	616,805	1,087,096
Secured by improved real estate under authority, sec. 24, Federal Reserve Act, as amended	125	27	152	45,207	259,547	304,906
Secured by real estate mortgages as other liens on realty not in accordance with sec. 24, Federal Reserve Act, as amended	4,261	666	4,927	38,927	186,377	230,231
Acceptances of other banks discounted	59,299	2,263	61,562	21,528	7,936	91,026
Acceptances of this bank purchased or discounted	22,551	2,990	25,541	6,076	2,381	33,998
Customers' liability on account of drafts paid under letters of credit	302	33	335	816	216	1,367
Total	2,009,100	594,664	2,603,764	3,614,971	5,759,993	11,978,728

* From *Report of the Controller of the Currency* (1924), p. 36.

ness man B. The most common form of two-name paper in the United States has until recently been that which arises out of the discounting of customers' notes.[15] Mr. A sells goods to Mr. B, and requires B to give a promissory note as evidence of the

[15] For a discussion of the trade acceptance see pp. 365–66.

transaction. Now A may discount this note with the bank, indorsing it in the process. Many people feel that in numbers there is strength and that since the bank here has two persons to whom it may look for payment, the note is doubly secure. The truth of the matter is, however, that as a rule the bank looks for payment only to the party who presented the note to the bank, namely, to the indorser—the reason for this being that the ordinary drawer of the note is generally unknown to the bank, whereas the indorser is usually a regular customer. The safety of the bank loan, therefore, primarily depends upon the standing of the individual upon whom the bank relies for payment. And whether a note be two-name or single-name, the bank makes the loan on the basis of its knowledge of the integrity and ability of the borrower—that is, the indorser in the case of a discounted customer's note.

Lending on single-name paper requires a careful analysis of the borrower's financial integrity and ability.—Since the safety of loans depends upon the accuracy of the bank's knowledge of the borrower, it is incumbent upon the bank to make a careful investigation of his integrity, ability, and financial resources. As a preliminary to a consideration of the making of bank loans, it will be of service to recall the outline of the factors involved in credit extension given on page 101.

In its analysis of the character and integrity of the borrower —of his intention and willingness to pay—the credit department of a bank has recourse to various sources of information. It sends out letters to references given by the credit applicant and to others whose opinions might be of value; and it secures reports from the commercial agencies, and from other banks with whom this borrower has had relations. A personal interview is usually requested in order that a first-hand impression may be gained; and considerable collateral information is often "picked up" from trade reports, newspaper comments, etc., as well as from the general "gossip" of the business community.

The commercial agencies, of which the chief are Dun's and

Bradstreet's, assemble data on the history and present status of the various businesses of the country and give to each a general credit "rating"—good, bad, or indifferent. These mercantile reports aim to cover the entire field of business and include every corporate and individual enterprise; but with new concerns springing up daily, it is of course impossible in practice to furnish recent information on all establishments. A serious handicap to reliable information lies in the fact that the agency reporters are not always treated with the greatest freedom and confidence; in some instances, indeed, there is an evident desire on the part of businesses to strengthen their rating by deliberate deception. Moreover, the reporters are relatively poorly paid and hence many of them are not particularly well qualified for the work in hand. Nevertheless, the service rendered is invaluable in the case of many small enterprises, and it is an important source of collateral information in nearly all instances. It may be added that upon request the agencies furnish special up-to-date reports to their customers.

In the large financial centers analysis of the borrower's financial statement is now regarded as indispensable to an intelligent extension of credit.—By far the most important source of credit information, nowadays, is the financial statement, with supplementary information that is furnished directly by the borrower. The use of the financial statement as a basis for loans dates back only to the nineties and its great development has been mainly a matter of the last twenty years. Even now the use of the statement is chiefly confined to the larger cities, though it is steadily gaining in vogue in the smaller cities and towns. Before the advent of the financial statement the banker relied only upon his general knowledge of the borrower's honesty and business ability. And so long as industry was conducted on a relatively small scale and business relations were of a highly personal sort, by direct observation and by the current gossip of the community with which he was in intimate touch the banker could obtain a fairly accurate line on credit risks. But

with the great growth in the size of business undertakings in the last generation, together with the inherent impersonality of urban life, the bankers of the financial centers have found it imperatively necessary to supplement personal impression and gossip by investigation based upon the financial records of the borrowing corporation or business. The development of systematic accounting methods necessitated by the great size and complexity of business was of course an indispensable handmaiden to the change in the methods of credit extension; for without accounting records it would be quite impossible to make an investigation of the condition of a large-scale enterprise that would have any meaning.

Different banks use somewhat different forms of financial statements. A typical form for corporations[16] is shown on page 363. It will be observed that it contains an income or profit-and-loss account, as well as a statement of resources and liabilities.

Besides the balance sheet and profit-and-loss account, collateral information is requested as follows: (1) contingent liabilities; (2) fire insurance on merchandise, on buildings, and on machinery and tools; (3) life insurance on officers' lives; (4) average amount of goods on hand; (5) at what time of the year liabilities are heaviest and at what time lightest; (6) total sales for last fiscal year; (7) average terms of sales and average terms of purchases; (8) regular time of taking inventory; (9) suits pending against the corporation; (10) authorized capital, subscribed and paid in; (11) annual dividends. The names and addresses of the officers and directors are also called for with a statement of the number of shares of stock held by each. There are also blanks for trade and for bank references.

There is no occasion here for making a detailed analysis of a financial statement. Suffice it to say that from the standpoint of bank management the most significant items on the balance sheet are the liquid assets and liabilities, or, as the phrase usually goes, the quick assets and current liabilities. The quick as-

[16] There is a separate form for individuals and partnerships.

sets are: cash on hand and in banks, notes and accounts receivable, merchandise, and raw materials. The current liabilities are: notes and accounts payable, and any other debts that are payable within a few months. All of the items on the liabilities side except capital, surplus, and bonded debt may usually be regarded as current.

Form 23 1M 12-22-15 B&H

BORROWER'S STATEMENT—Corporation.

Name (Corporate style under charter) _____

Business _____

Address _____

To the UNION TRUST COMPANY.

The following is a true statement of the financial condition of this corporation on the _____ day of _____ 19____, made to the UNION TRUST COMPANY, for the purpose of obtaining credit. We agree to notify said Bank promptly of any material change in our condition.

FILL ALL BLANKS WRITING "NO" OR "NONE" WHERE NECESSARY.

ASSETS				LIABILITIES			
Cash on hand				Notes Payable for Merchandise			
Cash in _____ bank				Notes Payable to own banks for borrowed money			
Notes Receivable, all good, owing by customers _____ $				Notes Payable to other banks or for paper sold			
Less Notes Receivable, discounted and sold _____ $				Other Notes Payable			
Balance Notes Rec. on hand				Open Accounts not due			
Accounts Receivable, all good, owing by customers				Open Accounts past due			
Notes or Accounts Receivable, owing by Directors, Stockholders and Agents				Due to Foreign Banks on account of credits			
Accounts over 60 days past due				Accounts due Directors and Stockholders			
Merchandise finished, at actual present cash value				Bonded Debt _____ (when due _____)			
Merchandise unfinished, at actual present cash value				Interest on Bonded Debt			
Raw Material				Chattel Mortgages			
Real Estate				Deposits of money with us			
Market Value _____ $				Other Indebtedness and of what composed			
Less Mortgages _____ $							
Equity							
Machinery and Tools							
Stocks, Bonds and Investments							
Other Assets and of what composed							
				Capital			
				Surplus, including undivided profits			
TOTAL				TOTAL			

Dr. PROFIT AND LOSS ACCOUNT, FISCAL YEAR ENDING _____ 191____ Cr.

				GROSS PROFITS			
Actual expense of conducting business				From Merchandise			
Bad debts charged off				From Interest and Discount			
Charged off for depreciation				From Investments			
Dividends Paid				From other sources			
Net Profits							
TOTAL				TOTAL			

Suppose now that a borrower who desires a loan of $100,000 presents a financial statement to the bank which shows quick assets totaling $800,000 and current liabilities amounting to only $200,000. Can the loan safely be granted, assuming that the management of the concern is in honest and capable hands? The banker sees that within the next few months the company will have to meet $200,000 of obligations, besides the $100,000 which would be owing to the bank in case the loan were made. By reference to the quick assets he discovers that the company either has on hand as cash, or will have as cash income during the same period, $800,000, to which may be added the $100,000 borrowed from the bank, which we may assume is to be used in buying additional raw materials. This is $600,000 more than the current liabilities. The company could thus suffer substantial losses through the failure of its debtors to pay notes and accounts in full and through depreciation of merchandise and raw materials before its ability to meet all current liabilities would be imperiled. Indeed, the quick assets would have to diminish more than two-thirds before the business would be unable to meet its current obligations in full.

The excess of quick assets over current liabilities constitutes the margin of safety for the banker. There is a general credit rule to the effect that the quick assets should be at least double the current liabilities. The margin required for safety, however, varies widely in different lines of business, at different times, and even in different localities. One must accordingly regard this rule as only a very rough approximation.

Fixed assets and long-time liabilities, the profit-and-loss account, and the information contained in the answers to the appended questions are used as collateral information and as checks on the accuracy of the financial statement. Concretely, if the ratio of quick assets to current liabilities were in a given case a scant two to one, and if the account in general looked very doubtful, the information presented in the statement of fixed assets and liabilities, in the profit-and-loss account, and

in the answers to the appended questions might nevertheless indicate that the loan could safely be granted. On the other hand, an apparently satisfactory statement, so far as quick assets and current liabilities are concerned, sometimes appears very different in the light of these collateral data.

Funds borrowed on single-name paper are sometimes devoted to fixed-capital purposes.—It has already been stated that the funds borrowed on single-name promissory notes are usually, though not always, devoted to working-capital purposes. In the illustration above we assumed that the loan of $100,000 was used for the purchase of additional raw material, thereby increasing the quick assets by $100,000. If the funds were used, however, to build additional warehouses, or to buy additional equipment, there would be an increase in the fixed and not in the quick assets. In this case the ratio of quick assets to current liabilities, after the loan had been made, would be $800,000 to $300,000 rather than $900,000 to $300,000. The use of these funds for fixed-capital purposes would not, however, necessarily make the loan unsafe or much less likely to be paid at maturity; the inflow of funds to the business within the life of the loan might still be more than sufficient to permit the payment of the loan at maturity.

While funds borrowed from the commercial banks are thus frequently employed for fixed-capital purposes, it nevertheless remains true that most of the credit extended in this form by commercial banks is devoted to the purchase of raw materials or stocks of goods to be used in the operation of the factory, store, or other business establishment.

3. *Two-name borrowing.*—One type of two-name borrowing, that on indorsed customers' notes, has already been discussed. There remains for consideration only the trade acceptance. It has often been said that the trade acceptance is of particular advantage in that it enables the business man to obtain much more working capital than would otherwise be the case. The trade acceptance, it is said, represents an actually com-

pleted business transaction—the sale of goods by A to B—a draft being drawn by A against B, accepted by the latter, and returned to the former. Accordingly when A wishes to borrow from the bank it is said that all that he needs to do is to present the trade acceptance for discount. But if B lives in a different town from A and from the bank, the bank, as we have seen, usually has little information with reference to B's financial standing. Hence, if it discounts the trade acceptance it will ordinarily do so only on the basis of a knowledge of A's financial standing. It cannot rely upon B, an unknown party, without investigation, and it is much simpler as well as safer to rely upon A, a regular customer, well known to the bank.

Now if the bank were to discount all of the acceptances possessed by A, A would indeed be borrowing more money than if he borrowed on his single-name promissory note, with the bank requiring quick assets of two dollars to every one dollar of current liabilities. But will a conservative bank be willing to ignore the ratio of quick assets to current liabilities in A's business and rely merely on the fact that A has sold goods and has trade acceptances to show for it? The answer is that most, if not all, of the conservatively managed banks of the country have recognized that to discount trade acceptances without regard to the ratio of quick assets to current liabilities would be dangerous and that the security for their loans would be less substantial than in the case of loans on single-name paper.

While the trade acceptance may have certain advantages from the commercial point of view, it does not possess the advantage so vigorously claimed for it by most of its proponents—that it enables business men to borrow much greater quantities of funds than would otherwise be possible. A sufficient answer to the contention that all businesses, by the use of trade acceptances, could greatly expand the volume of their working capital is apparent in the fact that the change from one method of financing credit operations to another does not increase the

volume of bank reserves—and reserves limit the total lending power of banking institutions.

3. *Loans secured by real estate mortgages.*—It has long been a controversial question whether commercial banks should be allowed to make real estate loans. From the organization of the national banking system in 1863 until 1913 national banks were, in fact, forbidden to make any loans on real estate security; but under the Federal Reserve law of 1913 the national banks, except in central reserve cities, are permitted to make such loans to a limited degree. On the other hand, the laws of the various states have always permitted the making of loans on real estate security, and we find from the financial statements of state banks that large quantities of such loans are characteristically made.[17] We are not for the present concerned with the advisability of the practice of making loans on the security of real estate mortgages; we are here interested only in the fact. It should be noted, however, that real estate loans are ordinarily devoted to the raising of funds for fixed-capital requirements.

4. *Loans secured by promissory notes as collateral.*—Loans are often made by banks to individuals where the borrower gives his own promissory note and deposits as collateral security the notes of other persons which he holds. In case the borrower does not pay his note, the bank may take possession of the collateral notes and collect the amount due from the makers thereof. The volume of such loans is, however, relatively small.

5. *Loans secured by stocks and bonds.*—The great growth of the corporation in modern times and the enormous issue of securities that this has entailed have given rise to a very extensive practice of making loans on the security of stocks and bonds as collateral. The individual gives the bank a promissory note, as in the case of an unsecured loan; but, in addition, he hypothecates with the bank stocks and bonds, which may be sold by the bank in the event that the loan is not paid. On page 369 is a copy of an ordinary promissory note with collateral agreement.

[17] For further information on this subject see p. 532.

The integrity of the borrower is important even when collateral is given.—While in making loans on collateral the bank has security to fall back upon in case the loans are not paid at maturity, it nevertheless cannot ignore the integrity and honesty of the borrower. Many cases have arisen where a dishonest borrower has pledged securities to which he had no title, or an imperfect one; and there are many other ways in which a dishonest or unscrupulous individual may cause the bank much trouble and inconvenience, if not actual loss, even with collateral loans. Accordingly, bankers feel it necessary to make a careful analysis of the borrower's general moral and financial standing before making collateral loans.

There is a difference, however, between a non-collateral and a collateral loan in that in the case of the latter the bank has an exclusive claim to assets which have been deposited with it, while in the case of the former it is merely one of several creditors; although it must be remembered that where the ratio of quick assets to current liabilities is large the chance of loss to the bank is very slight indeed. In the case of a collateral loan, nevertheless, the stocks and bonds, if well selected, can be very quickly disposed of; whereas in case a non-collateral loan is not paid, considerable time must ordinarily elapse before the bank can hope to come into possession of funds.

Collateral loans must be protected by a margin of value.—In order to make sure that the bank will not suffer loss when selling the collateral that has been placed for a loan, the banker insists upon a margin. That is to say, if a loan of $100,000 is secured by high-grade, readily marketable bonds, the bank would require the deposit of bonds the market value of which was at the time, say, $110,000. In the case of stocks the margin required is ordinarily considerably greater than with bonds; and of course the amount of margin that is required with any particular class of bonds or stock will vary widely, depending upon the relative fluctuations in value of the different securities. It may be observed that a highly important factor to con-

Due.....

$..... No..... Chicago, Illinois.....191.....

.....after date for value received the undersigned promise to pay to the order of

THE NATIONAL CITY BANK OF CHICAGO

.....Dollars

at its banking house in Chicago, Illinois, with interest AFTER MATURITY at the rate of seven per cent per annum until paid and with costs of collection and a reasonable attorney fee if not paid at maturity. Presentment for payment, notice of non-payment, protest, and notice of protest are each and all hereby waived by the makers, endorsers, and guarantors, jointly and severally. Any indebtedness owing from said bank or legal holder hereof to the undersigned or to any endorser or guarantor may be appropriated and applied by said bank or legal holder on this note at any time without demand upon or notice to anyone.

SIGN .....HERE

AND .....BELOW

The undersigned jointly and severally hereby deposit with and pledge to THE NATIONAL CITY BANK OF CHICAGO as collateral security for the payment of the above and foregoing note and of all other liabilities of the undersigned to said bank or the legal holder of said note (whether direct or contingent, joint, or several heretofore or hereafter contracted and whensoever or howsoever acquired by said bank or legal holder) the following property, the present value of which is $.....viz:

.....

.....

.....

At any time said bank or legal holder of said note may call for additional security satisfactory to the said bank or legal holder of said note, and failure to furnish the same within twenty-four hours of such call shall make said note and all other liabilities of the undersigned, or either of the undersigned, to said bank or legal holder at once due and payable without notice or demand to anyone. Said call for additional security may be made by giving any of the undersigned oral or written notice thereof or by mailing such written notice addressed to any office, place of business, or usual abode of any of the undersigned. The undersigned and each of the undersigned hereby give said bank or any of its officers, agents, or assigns full and irrevocable power and authority to sell, assign, and deliver said property and all substitutes therefor and additions thereto, or any part thereof, at any time and from time to time, without advertising or demanding payment or giving notice of any kind to anyone, at any broker's board or public or private sale, at the option of said bank or legal holder, and said bank or legal holder may be a purchaser at said broker's board or public sale or sales. The net proceeds of said sale or sales shall be applied upon said note or other liabilities of the undersigned to said bank or legal holder whether then due or not due, as, and in, the proportion said bank or the legal holder of said note may designate, and the surplus if any shall be paid to the undersigned or to any of the undersigned. In the event of a deficiency the undersigned and each of the undersigned promise to pay such deficiency forthwith after such sale. The word 'liabilities' used herein includes a reasonable attorney fee, and all costs, charges, disbursements, and expenses, legal or otherwise, to which said bank or legal holder may be subjected by reason of enforcing collection of the foregoing note by suit or otherwise, and by reason of holding or selling any securities or collateral belonging to the undersigned, or either of the undersigned, alone or jointly with others. The said bank or legal holder of said note is hereby expressly empowered at its option to receive dividends and all stock increases and other special dividends which may be made upon collateral held hereunder. The said bank or legal holder of said note is hereby expressly empowered at any time to collect, compromise, compound, extend, or renew said pledged securities and any additions thereto and substitutes therefor or any part thereof.

SIGN .....HERE

AND .....ABOVE

Business Address:

.....

sider is the quickness with which such securities can be sold. This depends upon the number of units that are daily bought and sold on the exchanges.

Many collateral loans are made for commercial purposes.—Loans on collateral owe their origin to various circumstances. Sometimes collateral is required by the bank because there is doubt as to the individual's ability to pay the loan promptly at maturity from the proceeds of his ordinary business operations. For instance, if the borrower's ratio of quick assets to current liabilities is rather narrow and general conditions not particularly favorable, the bank might refuse to make an unsecured loan. But if the individual had collateral to offer, the bank could make the loan with safety. In a case such as this the funds borrowed would doubtless be used for commercial purposes.

Collateral loans are sometimes devoted to consumptive uses.—Many collateral loans are also made to individuals who are not engaged in the producing, manufacturing, or marketing of goods. These individuals borrow in the main for three purposes: consumption, investment, and speculation. In the case of a consumptive loan, the bank knows that the employment of the funds will not directly result in creating the means of repaying the loan. The collateral deposited at the bank is accordingly looked to as the main security. If the individual is able to pay the loan out of income received, well and good; if not, the collateral may be sold by the bank in settlement of the obligation.

Loans secured by stocks and bonds are extensively used for fixed-capital or investment purposes.—Commercial banks make investment loans to the investment bankers to assist them in connection with the underwriting and distributing of securities; to individual investors who find it necessary to borrow temporarily a portion of the funds required in the making of an attractive investment; and to business men who wish to use the funds for fixed-capital requirements. In all these cases, the collateral protects the bank in case the loans are not paid at ma-

turity, through enabling it to obtain cash by the sale of the collateral in the securities markets.[18]

It is of interest to inquire why investment bankers, who are engaged in the buying and selling of securities, are required to put up collateral as a basis for loans, while business men who are engaged in the buying and selling of commodities commonly borrow on their single-name promissory notes. It will be noted that, from the point of view of the investment banker, the funds which he borrows provide him with working capital. If an investment banker borrows $100,000 with which to buy securities, cannot the commercial banker rely upon the investment banker's paying the loan at maturity out of the proceeds derived from the sale of the securities bought with the borrowed capital, just as he can rely upon a merchant's paying a loan out of the proceeds of his business? The answer is, not with the same certainty, for the reason that the security markets are more capricious than the commodity markets. There is less certainty as to the time at which the sale will be made; and there is also a greater chance of loss than in the case of ordinary manufacturing and mercantile enterprises.

But there is another reason why collateral is ordinarily employed by the investment bankers in their borrowing oparations, namely, because they chance to have in the securities in which they are dealing instruments which are in a convenient form to serve as collateral. A manufacturer of raw materials cannot use his raw materials as collateral for a loan and at the same time convert them into finished product; nor can a merchant at the same time have his wares on display and on deposit as collateral with the commercial bank. And obviously the bank could not handle such collateral.[19] But stocks and bonds do not need to be displayed in order to be sold, and, by virtue of their trans-

[18] But for the difficulties which arise in time of monetary stringency see pp. 508–10.

[19] To the extent that commodities serve as collateral, as we shall presently see, it is usually through the issue of warehouse receipts and bills of lading. See pp. 379–82.

ferable and negotiable qualities, they can be conveniently deposited with the bank in a collateral capacity. While investment bankers would doubtless be able to borrow without collateral on the strength of their reputation for business integrity and ability, they find it advantageous to use collateral because they can usually borrow on more favorable terms than they could on unsecured notes.

It remains to point out that in making loans to investment bankers the commercial bank is in the last analysis furnishing funds for fixed-capital purposes. While the investment banker uses the funds thus borrowed as his working capital, he of necessity turns them over to the corporation whose securities are being marketed. Thus all the loans that we have classified under investment are devoted to fixed-capital purposes.[20]

Collateral loans are also devoted to speculative purposes.—Speculative loans are of two main sorts, those made to real estate and similar dealers, and those made to traders on the stock exchange. With both types, collateral security is practically always required. In the case of real estate and similar loans it may perhaps be asked, Why should collateral be required, in view of the fact that the funds borrowed are used for working-capital purposes, that is, in the purchase of real estate or other commodities that are shortly to be sold at a profit? Are such operations not as much commercial in their nature as the buying and selling of ordinary merchandise? The reason for denoting such loans as speculative in their nature is that the time at which the sale will be made is much less certain than in the case of ordinary merchandising; and there is also a greater likelihood of a loss in connection with the transaction. Accordingly, the bankers commonly insist upon collateral security in the form of stocks and bonds.

Stock exchange speculation is largely conducted with "call"

[20] It should, however, be recalled (see chart on p. 165) that the funds raised from the sale of securities are not exclusively devoted to fixed-capital purposes.

loans.—A discussion of the process of lending to stock exchange speculators requires first a description of the call loan system. While a "call" loan is one that is terminable at a moment's notice at the will of either the borrower or the bank, in practice such loans always run at least one day, payment on demand meaning that they are subject to call on the day following. There is also a rule that loans cannot be called by the bank or paid by the borrower after 1:00 P.M., unless notice has been given before that hour.

The reason for the development of the call loan system lies in the nature of stock market speculation. An individual who buys securities with borrowed funds does not know at the time of the borrowing just when he will be able to repay the loan, for it all depends upon the trend of the market. If he were to contract a loan for thirty days, and at the end of four days should have sold his stock he would find it necessary to pay interest for twenty-six days, during which time he might have no further use for the money. The cost of speculation is accordingly very greatly reduced if one is enabled to repay the loan at any time desired. The call loan system also has its advantages from the viewpoint of the banker. By virtue of the fact that a metropolitan bank can demand immediate payment of a call loan, it does not need to carry so large a cash reserve as would otherwise be the case. It can keep its funds more fully utilized and thereby increase its earning power.[21]

The interest rates on call loans are subject to very wide fluctuations. They have ordinarily been lower than any other rates; but on several occasions they have gone beyond 100 per cent. For instance, the call loan rate rose to 127 per cent on October 29, 1896; to 186 per cent on December 16, 1899; and to 125 per cent on December 28, 1905. During the year 1919 rates were frequently as high as 15 or 20 per cent, and once they reached 30 per cent. These high rates occur at times when there

[21] We shall later see, however, that in time of crisis, there are serious weaknesses in the call loan system.

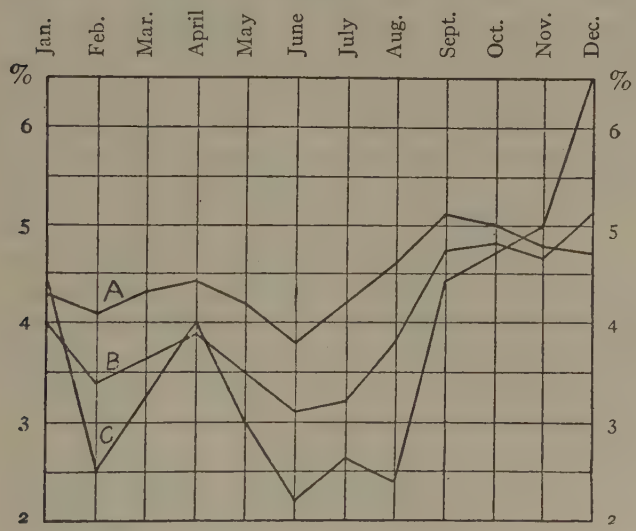
is a great dearth of loanable funds and a heavy demand both for commercial and speculative purposes. A flurry on the stock exchange will often give rise to a very great temporary demand for funds. The reason why call rates average lower than unsecured and collateral time loans is that the call loan funds are what may be designated as residuary funds. The bank's first business is to take care of commercial borrowers and others who secure time loans on collateral. Funds not required for these purposes are available for market operations. If the supply chances to be fairly large, as it normally is at certain seasons of the year, the rates will be low. If the supply is scanty, the rates will be high. Over a period of years the statistics show that the supply of funds for the purpose has, on the whole, been fairly large. The diagram on page 375 indicates the average monthly rates in the New York money market on different classes of loans for a period of eleven years, 1896 to 1906, inclusive.[22]

The making of loans for stock market speculation is associated with margin trading, discussed in chapter xv. We there saw that the individual who bought securities on a margin paid, say, 10 per cent down and borrowed the rest from the broker. But the broker is not a banker and has no funds of his own to lend. His ability to permit the speculator to buy on a margin is contingent upon his own ability to borrow the funds from his bank. To take a concrete case, suppose a broker buys at par 10,000 shares of stock on a 10 per cent margin for a customer; $1,000,000 will be required to pay for the stock. The customer advances $100,000. Most of the remainder is borrowed by the broker from the commercial bank; most, but not all, for the reason that the bank will not usually lend so large an amount as 90 per cent of the value of the stock, and especially to a broker who has no funds of his own on deposit with the bank. Typically speaking, a broker is required to keep a balance with the bank equal to 10 or 15 per cent of the amount of his bor-

[22] Taken from William A. Scott, "Rates on the New York Money Market," *Journal of Political Economy*, XVI, 273–98.

rowings. In the case before us, therefore, we may assume that the broker would borrow from the bank $800,000. Now the $100,000 received from the customer, plus the $800,000 borrowed from the bank, taken in the form of a deposit account, plus $100,000 which the broker already had on deposit in the bank, enable the broker to write a check for $1,000,000 with which to buy the stock in question.

MONEY AVERAGES IN NEW YORK MONEY RATES



A = Commercial paper double name 60-day. B = 60-day time. C = Call loan.

Loans to stockbrokers are temporarily unsecured.—The broker cannot buy the stock until he has secured a loan, and he cannot obtain a loan except on the security of the identical collateral which is to be purchased with the borrowed funds. The way out of his dilemma that has been developed is for the bank to certify a check for $1,000,000 drawn by the broker against his account of $200,000—a process known as "overcertification." With this check the broker buys the stock and then deposits it as security for the loan. It is apparent, therefore, that in cer-

tifying the broker's check the bank has in effect given him temporarily an unsecured loan. Such a practice ordinarily involves very little risk, since a good credit standing is absolutely indispensable to the broker—a primary requisite for success.

The practice of overcertification was long indulged in by both national and state banks. But since it is akin to an ordinary overdraft the practice was eventually frowned upon by the Controller of the Currency and the national banks have gradually abandoned the practice, substituting therefor a system of making "morning" loans to brokers for whatever amount appears to be necessary for their daily business. These loans are based on the single-name paper of the broker, that is, on his unindorsed individual note. The only difference between this and overcertification is that with the morning loan the bank has the broker's written promise to pay, while in the case of the overcertification it has not; both are temporarily unsecured loans.

The amount of overcertification and morning loans required for stock market operations is simply stupendous in a period of active stock market speculation. In the year 1901, for instance, such loans in New York totaled nearly $13,000,000,000 for stock transactions and another billion for bonds, an average of about $45,000,000 daily.

6. *Loans secured by bills of lading.*—Among the forms of collateral available as security for bank loans none is more interesting or more important than the bill of lading. This instrument, which is issued by a transportation company, is of a threefold character, that is, it performs at once three different services: first, it is a receipt for designated goods, accepted for shipment by the carrier; second, it is the written evidence of a contract to transport and deliver the designated goods to a designated person upon terms specified in the instrument; and, third, it is a document of title to the goods. The importance of these instruments in connection with banking operations may be readily indicated.

A dealer in cotton, grain, or merchandise purchases goods

for sale in another market. Some little time must necessarily elapse between the date of shipment and this receipt of funds from the buyer—the length of time, of course, varying with the distance and with the terms of payment. The seller, however, usually needs the funds immediately, in order to pay for the produce which he has just shipped, or to buy more, in case the present consignment has already been paid for. Accordingly, he draws a draft upon the purchaser of the goods and discounts this with the local bank, turning over to the bank at the same time the bill of lading that has been received from the railroad company. The bank thus has in its possession a draft—not yet accepted—and also an instrument which bears on its face evidence that there has been an actual shipment of goods and which at the same time conveys the title of these goods to the banker—for only the holder of the bill of lading has the right to demand the goods from the railway company.

The bank sends the bill of lading, attached to the draft, to a correspondent bank in the city where the buyer lives. The draft is presented to the purchaser of the goods for payment, in case it is a demand draft, and for acceptance in case it is a time draft. If the goods are to be paid for immediately, the bill of lading will of course be surrendered forthwith to the buyer of the goods, who can then secure their release from the railroad company. In the case of a time instrument, it is still necessary for the buyer to get possession of the goods if he is to use them in his business. The bank therefore directs that the goods shall be delivered to the purchaser, but on conditions which protect its interests.[23] Both sellers and buyers of goods thus borrow with bills of lading as collateral security: the sellers during the period while the goods are in transit; and the buyers for such additional time as may be necessary.

There are two kinds of bills of lading, classified from the point of view of the ease with which they may be transferred:

[23] This ordinarily involves the use of a "trust receipt." See illustration on p. 395.

first, the straight bill, which states that the goods are consigned or destined to a specified person; and second, the order bill, which is made payable to the order of some person. In the nature of the case, a straight bill cannot be transferred by indorsement, while an order bill is always thus "negotiable" under the federal Bill of Lading Act, unless it is specifically made "non-negotiable" by the shipper. It should be observed that the transfer of order bills of lading by indorsement does not render them available as substitutes for currency; they do not possess all the requisites of a fully negotiable instrument in that they do not call for the payment of a specific sum of money. The purpose of giving them a ready transferability by indorsement is to permit the title to the designated goods to be easily passed from one party to another, and thus to facilitate the use of these instruments as collateral for loans.

Bills of lading arose with the development of transportation; and, as in the case of other instruments, a considerable body of law has been developed by our various legislative agencies for facilitating their use in the capacities for which they were designed. The law left much to be desired, however, until after the passage of the federal Bill of Lading Act, which became effective January 1, 1917. Before this time there were many irregularities and frauds in the use of bills of lading, particularly in connection with the shipment of cotton to Europe. Indeed, it was feared for a time, not many years ago, that the cotton frauds, which ran into millions of dollars annually, would imperil our entire cotton export trade. The sources of loss to bankers on bills of lading have been enumerated as follows: (1) the issue of bills of lading without the receipt of the goods; (2) the delivery of the goods to the purchaser without cancellation of the bill of lading; (3) the alteration of bills of lading; (4) the forgery of bills of lading; (5) the issue of duplicate bills of lading, the originals being still outstanding and uncanceled. The agitation for an improvement in the law regulating bills of lading finally became acute. It was participated in by the ship-

pers and commission merchants, by transportation companies, and by the bankers of the country. The interests of these several groups did not precisely coincide at all points, but an agreement on the main principles was finally reached, and a number of states were led to pass what was known as the Uniform Bill of Lading Act, after which the federal Bill of Lading law above referred to was modeled.

The volume of business that is financed on bills of lading is tremendous in quantity. It has been estimated that about twenty-five billion dollars' worth of transactions now annually involve their use, and that about five billions of this amount are financed by the commercial banks. Bills of lading are used in connection with two main classes of goods, as follows: first, general merchandise and groceries; second, commodities, such as live stock, grain, cotton, and perishable produce. It appears that a very large percentage of the business of the wholesale grocers in the large financial centers, the bulk of the business in poultry and game, and about 75 per cent of the business in the butter-and-egg trade is handled on order bills of lading.

On the following page is a copy of a straight (non-negotiable) bill of lading.

7. *Loans on warehouse receipts.*—Another form of borrowing is that on the promissory note of an individual secured by a warehouse receipt as collateral. As in the case of ordinary single-name borrowing, the underlying security is goods, but there is a difference in that the warehouse receipt is issued against specific goods held in storage; where the ordinary single-name commercial loan is based upon the general assets of the borrower, a loan protected by a warehouse receipt is based upon the specific assets. Moreover, the holder of a warehouse receipt, like the possessor of a bill of lading, has control of the disposition of the goods in question.

Wherever it is convenient to do so, the warehouse receipt is employed as a basis of credit. We have already seen that it is impossible for a manufacturer to so use materials that are in

process of manufacture; and that, similarly, it is usually impossible for a merchant to use his merchandise as collateral for a loan for the reason that it must be on display. But certain

BILL OF LADING

STRAIGHT BILL OF LADING—ORIGINAL—NOT NEGOTIABLE.

Shipper's No.....

Agents No.....

RECEIVE, subject to the classifications and tariffs in effect on the date of issue of this Shipping Order,

at Milwaukee, Wis. March 16, 19 17,

from Allis-Chalmers Mfg. Co the property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned and destined as indicated below, which said Company agrees to carry to its usual place of delivery at said destination, if on its road, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the conditions, whether printed or written, herein contained (including conditions on back hereof) and which are agreed to by the shipper and accepted for himself and his assigns.

The Rate of Freight from.....

to.....*is in Cents per 100 Lbs.*

If ...Times 1st	If 1st Class	If 2d Class	If Rule 25	If 3d Class	If Rule 26	If Rule 28	If 4th Class	If 5th Class	If 6th Class	If Special per.....	per.....

(Mail Address—Not for purposes of Delivery.)

Consigned to Trans Continental Freight Co. 203 So. Dearborn St.

Destination, Chicago State of Ill. County of.....

Route..... Car Initial C&NW. Car No. 383892

NO. PACKAGES	DESCRIPTION OF ARTICLES AND SPECIAL MARKS	WEIGHT (Subject to Correction)	Class or Rate	Check Column
10	Cases Machinery			
2	boxes Steam Pump Parts			
1	crate Machinery			
2	Wheels			
1	Pump skidded	8566 lbs		
	MARKED			
	Honolulu Iron Works			
	Honolulu, T.H.			
	H. C. & S			
	CO MILL			
	KAHULUI			
	HAWAIIAN ISLANDS			
	< FOR CONSOLIDATION >			

I We hereby declare the value of the property herein described to be.....

Shippers Signature

If charges are to be prepaid, write or stamp here "To be Prepaid."

Received $..... to apply in prepayment of the charges on the property described hereon.

Agent or Cashier

Allis Chalmers Mfg. Co. Shipper.

Per H.R.M.

kinds of goods, notably whiskey and other beverages (in the past?), grain, cotton, hides, sugar, canned goods, etc., are commonly held for considerable periods of time in warehouses; and

receipts against such goods are well adapted to serve as collateral for loans. The warehousing business has developed very rapidly in recent years, and accordingly loans on warehouse receipts as collateral have been rapidly expanding in volume.

Improving legislation is, moreover, rapidly placing the warehousing business upon a secure basis. In recent years various states have passed warehousing laws and installed systems of licensing and inspection so that warehouse receipts have become among our most reliable forms of commercial instruments. A United States Warehouse Act was also passed on August 11, 1916, which provides for the issuance of licenses by the Secretary of Agriculture for the operation of warehouses for the storage of agricultural products. The license brings the operation of the warehouse under an inspection service of the Department of Agriculture and makes it incumbent upon the owner of the warehouse to give bonds for the faithful discharge of his obligations to the owners of commodities placed in his custody. The inspection service includes an examination of the warehouse before the license is issued, and from time to time thereafter, together with an examination of the competency of the warehouseman in classifying, weighing, and certifying the produce received.

Every warehouse receipt issued under this law shall state the following things: (*a*) location of warehouse; (*b*) date of issue; (*c*) consecutive number; (*d*) to whom deliverable; (*e*) rate of storage charges; (*f*) description of products; (*g*) grade or other class; (*h*) that it is issued under the United States Warehouse Act; (*i*) the interest of warehouseman, if any; (*j*) advances and liabilities for which warehouseman claims a lien.

Warehouse receipts, like bills of lading, are documents of title to the goods in storage. They are sometimes negotiable and sometimes not, depending upon the conditions under which they are issued. Like bills of lading they are not substitutes for currency and do not embody all the requisites of a full-fledged negotiable instrument; they do not call for payment in money, for example, but only for the delivery of certain specified goods.

Below is a copy of an ordinary "negotiable" warehouse receipt.

With bills of lading and warehouse receipts as security, as with stocks and bonds, the bank usually requires a margin of safety.—That is to say, on a bill of lading or warehouse receipt of high standing and against a commodity which is not subject to wide fluctuations in value, such as grain and cotton, the bank may lend as high as 90 or 95 per cent of the market value of the produce against which the receipt is issued.

It may also be pointed out that the giving of collateral in

WAREHOUSE RECEIPT

ORIGINAL
NEGOTIABLE

DOE WAREHOUSE.
(Town.) (State.)

RECEIPT No. .....
DATE.....

INCORPORATED UNDER THE LAWS OF..... ..... PAID IN CAPITAL STOCK $.....

WAREHOUSE RECEIPT
FOR
ONE BALE OF COTTON

RECEIVED FROM..... of..... on..... 191..
the below described one bale of cotton for storage by the Doe Warehouse in its warehouse located at _____, _____.
(Town) (State)
subject to the conditions hereinafter set out. Said bale of cotton is identified by the tag numbers and marks, and, subject to reasonable variations and concealed defects, is of the weight, grade (according to the official cotton standards of the United States, unless expressly stated otherwise), length of staple, and condition set out below.

TAG NO. ..... MARKS..... WEIGHT..... GRADE..... LENGTH OF STAPLE..... CONDITION.....

Said cotton is.... under shelter and.... exposed to the weather, and is fully insured against loss or damage by fire unless otherwise stated on the face of this receipt.

The Doe Warehouse claims a lien on said cotton for charges, advances made, and liabilities incurred as follows: Storage from date of receipt of cotton at the rate of..... per month or fractional part thereof..... .....
Insurance from date of receipt of cotton at the rate of..... per month or fractional part thereof..... .....
Weighing..... .....
Grading..... .....
Stapling..... .....
Freight charges..... .....
Money advanced..... .....
Miscellaneous..... .....

Upon return of this receipt properly indorsed and the payment of all charges, advances, and liabilities thereon, the cotton described herein will be delivered immediately to.....or his order.

(Signed).....

Per.....

(Title.)

OM & RO Cotton Warehouse System, Form No. 3A.

the form of a bill of lading or warehouse receipt is not required by the bank on the ground that the loan would otherwise be unsafe. Indeed the business out of which warehouse receipts and bills of lading grow is essentially commercial in its nature. The use of warehouse receipts and bills of lading as collateral for loans is mainly attributable to their convenience for the purpose, and to the fact that through their hypothecation as collateral security the borrower is enabled to secure somewhat larger advances than would otherwise be the case. Indeed, produce dealers are commonly granted large loans on their single-name notes—granted a "line of credit"; and it is only when loans in excess of this amount are desired that the collateral is required.

8. *Investments in stocks, bonds, short-term notes, mortgages, etc.*—Investments in securities are not listed among the types of loans in the table on page 359. An investment, however, does represent a loan of funds quite as truly as any of the lending operations that we have been discussing, the only real difference being the length of time for which the credit is extended.

In general, it may be said that the investments of commercial banks in stocks are negligible in amount. Because of the wide fluctuations to which stock values are subject, it is regarded as bad banking practice to hold shares, except temporarily, as a means of salvaging bad debts. But most commercial banks have long followed the practice of investing a considerable portion of their assets in high-grade bonds, and to a lesser degree in mortgages, warrants, etc. The following table shows the amount and character of bond and stock investment holdings of the national and state banks of the United States in 1924.

INVESTMENTS OF COMMERCIAL BANKS*

(In Thousands of Dollars)

All National Banks	
United States bonds	$2,481,778
State, county, or other municipal bonds	505,528
Railroad bonds	573,571
Other public-service corporation bonds	397,560
All other bonds	575,743
Claims, warrants, judgments, etc	90,594
Collateral trust and other corporation notes	105,933
Foreign-government bonds	179,470
Other foreign bonds and securities	85,055
Stock, Federal Reserve banks	72,318
Stocks, all other	74,778
Total	$5,142,328
17,436 STATE BANKS	
United States bonds	$ 462,507
State, county, and municipal bonds	201,513
Railroad bonds	61,246
Bonds of other public-service corporations	102,036
Other bonds, stocks, warrants, etc	1,890,853
Total	$2,718,155

* *Report of Controller of Currency* (1924) pp. 44, 56.

In this chapter we have merely been presenting the facts as to the nature of commercial bank loans and investments; there has been no attempt to consider the wisdom of this or that particular type of credit extension, or the results of the loan policy of banks upon the safety and efficiency of the commercial banking system in general. These issues will be considered in subsequent chapters.

QUESTIONS FOR DISCUSSION

I. GENERAL CONSIDERATIONS

1. Are the banks of your community national or state institutions? Ascertain by local inquiry why they were organized under state or national law, as the case may be.
2. Are there any private banks in your community? If so, are they subject to state supervision of any kind?
3. Enumerate as many ways as you can in which the commercial banks of your community render services to their customers. Which do you regard as of greatest importance?
4. Do you keep your own financial accounts by means of a check book and a monthly bank statement? If not, why not?

II. ANALYSIS OF COMMERCIAL BANKING OPERATIONS

5. What is the difference between loans and discounts? "All discounts are loans but not all loans are discounts." Explain this statement.
6. What is the difference between bank and true discount? Figure the bank and the true discount, respectively, on $100,000 at 6 per cent for three months.
7. What is an overdraft? Why is it listed as an asset?
8. In what different ways do commercial bank deposits arise? Which is the more common?
9. It is sometimes stated that a commercial bank lends out the funds of its depositors. Do you think this is an accurate and adequate statement of the nature of commercial banking operations?
10. "The commercial bank acts as an intermediary between lenders and borrowers. It collects funds from certain people and lends them to others." Do you agree?
11. "The commercial bank assembles cash resources from original capital contributions, from earnings, and from (cash) deposits, and on the *basis of these cash resources* it makes loans and creates deposit accounts." Do you agree?

12. Indicate the changes in a commercial bank's balance sheet that would result from the following operations, using plus or minus signs as in the problem on page 335.
    a) Discount a promissory note of $100,000 for two months at 6 per cent. Assume that the borrower does not wish to withdraw his funds in actual cash.
    b) Assume that a depositor writes three checks against his account, each for $30,000; one of them is deposited in this bank; one in another bank in the same community; and the third in a bank in another town.
    c) The loan made in (a) above is paid at maturity in the following manner: (1) one-half by check against the borrower's account in this bank; (2) one-eighth by a certified check of a depositor in this bank; (3) one-eighth by a cashier's check on another bank in the same city; (4) one-eighth by a bank draft on New York; (5) one-sixteenth by notes of this bank; and (6) one-sixteenth by cash.
    d) Receive a deposit of $25,000 composed of the following items: (1) $5,000 in cash; (2) $5,000 in checks on other banks, members of the same clearing house; (3) $5,000 in drafts on an out-of-town bank; (4) $5,000 in notes of other national banks; and (5) $5,000 in checks on this bank.
    e) Make a loan of $10,000 to Mr. X in the form of an issue of bank notes. Assume the price of 2 per cent government bonds to be $101.
    f) Purchase $10,000 in bonds, paying for them by cashier's checks.
    g) Declare a semiannual dividend (using the figures in the Continental and Commercial National Bank statement on p. 345) of 10 per cent, crediting one-half of the amount to the accounts of stockholding depositors and paying the remainder by drafts on New York. Carry the remainder of the undivided profits account to surplus.
13. In which class of national banks do you find note issue of relatively greatest importance? least importance? (See table on p. 354.) How do you explain this?
14. How do you explain the relative decrease in the volume of national bank notes in all classes of banks between 1870 and 1924? Who determines in practice whether a bank shall issue notes or create deposits when making a loan?

III. ANALYSIS OF COMMERCIAL BANK LOANS

a) *The Various Types of Loans*

15. "The pivotal thing in sound banking is the character of a bank's loans." Why?

16. Which is the more significant classification of bank loans, by time or by the character of the security?
17. Study the classification of bank loans on page 359 and draw up a statement of the points of significance and interest.
18. What is the meaning of the last two items in this classification of loans?
19. X, a real estate dealer, borrows $10,000 from a bank for three months, giving as security a mortgage on real estate which he purchases with the money. Is this a commercial, investment, or speculative loan?
20. X Railroad Company borrows $100,000 from a bank on six months' time, giving the bank its unsecured promissory note: (*a*) the company uses the funds in buying equipment; (*b*) the funds are used for meeting operating expenses. Is this, in each case, a commercial or an investment loan?
21. Would it make any difference in the preceding example if the loan were secured by collateral?
22. A bank lends a lawyer $1,000 for two months on his single-name promissory note. Is this a commercial, speculative, or investment loan? Suppose the note were indorsed: would this change its nature? What if collateral were required?
23. J. P. Morgan and Company borrows $100,000 from a bank for three months, putting up stocks and bonds as collateral. Is this an investment, speculative, or commercial loan? Are the funds used as working or fixed capital by J. P. Morgan and Company? What is the ultimate disposition of the funds?
24. A manufacturer borrows for three months $20,000 with which to buy raw material, giving his unsecured note to the bank. Is this a commercial or an investment loan?
25. A producer of raw materials borrows for ninety days $20,000 and uses the funds to meet pay-rolls. Is this commercial or investment borrowing?
26. A wholesaler discounts at his bank a trade acceptance, due in sixty days. Is this an investment or a commercial loan?
27. A retailer borrows $10,000 from a bank on his single-name promissory note for three months and uses the funds in erecting an addition to his store. Is this a commercial or an investment loan? Would you hold that a commercial bank should never make such a loan without collateral security?
28. A bank makes a loan to an individual who uses the money in perfecting an invention on which he hopes to realize a fortune. How would you classify such a loan?
29. A bank lends money to a man who is a promoter of industrial combinations. How would you classify such a loan?

30. What sort of loan would you call one to a country preacher? to a new doctor in a small town?
31. What are "character loans"?
32. How would you classify a loan made to a broker on the stock exchange?
33. Would you regard a loan to the son of a retired merchant on the basis of his father's good reputation a safe loan? Would it be wise to make many such loans? Should collateral be required?
34. Is the significant element in a "commercial" loan the short duration or the use to which the funds are put?
35. Why are commercial loans commonly of short duration? Strictly speaking, what principle should govern their duration?

NOTE.—The student should reserve final judgment on this question until after he has studied chapter xxii, particularly pages 509–10.

b) Single-Name versus Double-Name Paper

36. In the case of a loan on a single-name promissory note, who owns the note? Who owns an indorsed note?
37. Who owns notes that are deposited as collateral for loans?
38. X brings to the bank a promissory note of Y and indorses it over to the bank. As a banker, would you base your confidence that the loan would be paid on X or on Y? Which one is primarily liable?
39. Which would you prefer to have, an indorsed promissory note or trade acceptance arising from a specific and already consummated sale of goods from X to Y, or a single-name promissory note of X who presents a financial statement showing total quick assets equal to four times the total current liabilities?
40. In general, do you see any inherent advantage in basing a loan on a specific transaction of a given business man rather than on his transactions in general, as revealed by his financial statement and profit-and-loss accounts? If so, what?
41. Classify, in the order of their importance, the various sources of credit information that are available to a bank.
42. What is the supposed especial advantage of loans on trade acceptances? Is a trade acceptance superior in any way to a trade note?
43. As a banker, would you discount trade acceptances, without regard to the general financial standing of the borrower?

c) Loans on Collateral

44. Who owns the collateral during the life of the loan?
45. In what respects is mortgage collateral inferior to bonds and stocks?
46. Why are not promissory notes more commonly used as collateral for bank loans?

47. Name as many reasons as you can why collateral may be required.
48. In the case of loans to investment bankers and stock exchange operators, is collateral security indispensable to a safe extension of credit?
49. Indicate the changes on a bank's balance sheet that would result from the following collateral loaning operations:
    a) A loan of $40,000 for three months at 6 per cent is made on the basis of collateral composed of bonds and stock, the margin being 20 per cent.
    b) The foregoing loan is paid at maturity by a check on this bank. Meanwhile the value of the collateral had shrunk until the margin was only 10 per cent.
    c) The bank makes a $50,000 call loan, the call rate at the moment being 6 per cent. Collateral is deposited with a market value of $60,000.
    d) The bank calls the foregoing loan (*c*) and the broker is unable to pay, whereupon the bank sells the collateral for $55,000, receiving in payment a check on another bank in New York. The loan had run for thirty days, and the call rate during this period had averaged 8 per cent.
50. What governs the rates on call money? How do they compare at present with other rates?
51. How is it ever possible for an individual to pay as much as 100 per cent for the use of money?
52. How can banks afford to accept only 2 or 3 per cent on money loaned at call? Are they not losing on such money?
53. What is the difference between the *demand* loans of banks outside of New York and the *call* loans in New York?
54. How do you account for the different rates on the different types of loans, as shown by the chart on page 375?
55. What is the purpose of "overcertification"? of "morning loans"? Are the latter any safer than overcertification?
56. How large a margin should be required with the following collateral: (*a*) unlisted common stock of a good, substantial concern? (*b*) listed preferred stocks of an industrial corporation? (*c*) railroad bonds? (*d*) municipal bonds? (*e*) grain warehouse receipts?
57. What is meant by "mixed" collateral? Is there any advantage in it?
58. Do you see any objection to making collateral loans for fixed-capital purposes?
59. In what respects does a bill of lading differ from other collateral?
60. Would you prefer a bill of lading as collateral to stocks and bonds? Why, or why not?
61. Could produce dealers and others who borrow on bills of lading as collateral not obtain loans on their unsecured notes?

62. As a banker, would you grant loans more readily and for larger amounts where bills of lading were given as security? Why, or why not?
63. In what respects does a warehouse receipt differ from securities as collateral?
64. As a banker, would you refuse to lend to, say, a produce dealer except upon the deposit of a warehouse receipt as collateral?
65. Would you lend a larger sum with than without a warehouse receipt as collateral? Would you grant any lower rates?
66. Do you think it probable that warehouse receipts and bills of lading are used as collateral whenever they are available for the purpose? Why, or why not?

d) Investments of Commercial Banks

67. Study the financial statement of your local banks and ascertain how many different types of investments they hold.
68. In what respects are bonds better investments for commercial banks than stocks? than mortgages?
69. In what respects are short-term notes superior as bank investments to bonds?
70. Why are United States certificates of indebtedness a popular form of bank investment?
71. Why are bonds with an early maturity date regarded as particularly desirable types of bond investments for commercial banks?
72. Do you see any general disadvantage in investments as compared with collateral loans?
73. Would you support the doctrine that commercial banks should not invest in securities and thereby furnish funds for fixed-capital purposes?

    NOTE.—Final judgment on this issue should be reserved until after chapter xxii has been read.

REFERENCES FOR FURTHER READING

Agger, Eugene E.: *Organized Banking*, chap. i.

Dewey, D. R., and Shugrue, M. J.: *Banking and Credit*, chaps. xi, xii, and xiii.

Holdsworth, John Thom: *Money and Banking*, chap. viii, x, and xvi.

Moulton, Harold G.: *Principles of Money and Banking*, Part II, chap. iv.

Phillips, Chester A.: *Readings in Money and Banking*, chap. ix.

Shaw Banking Series: *Credits and Collections*, chaps. vi, vii, and viii.

White, Horace: *Money and Banking*, Book III, chap. ii.

Willis, H. Parker, and Edwards, George W.: *Banking and Business*, chaps. ix, x, and xi.

CHAPTER XIX

COMMERCIAL BANKING AND THE FINANCING OF FOREIGN TRADE

In the foregoing discussion of the practical operations of commercial banks, the analysis related primarily to the part these institutions play in financing local or domestic business requirements. In the present chapter our attention will be specifically directed to the relations of commercial banks to the financing of foreign commerce and industry.

I. FINANCING IMPORT TRADE

In illustrating the principles of foreign exchange in chapter ix it was pointed out that the American exporter customarily draws a bill of exchange on a London importer, or on a bank designated by him, and then offers the bill for sale in the New York market. It has, however, not been true that the British exporter to this country commonly draws a bill upon the New York importer, or a designated bank, and offers this bill for sale in London. The practice has rather been for the American importer to buy a sterling bill of exchange from an American bank and remit this in payment, or for the foreign exporter to draw a draft against a London bank rather than against a New York institution. In considering the part that commercial banks play in the financing of import trade, we must therefore first consider the reasons for the common practice of drawing these bills on London rather than on New York.

Until after the adoption of the Federal Reserve System in 1913 United States banks were not permitted to accept drafts drawn against them. A British exporter would not draw on an individual in New York because of the difficulty in disposing

of such a bill at a reasonable rate—unless the individual importer chanced to have an international reputation. It was accordingly much cheaper for the exporter to receive a bill drawn on a London bank; for this could be promptly discounted at a low rate in the London discount market. And even were a draft accepted by an American importer of international reputation, it could still not be discounted in the London market on as favorable terms as London bills. Through the use of London bills the British exporter was, moreover, enabled to avoid the "risk of exchange," that is, changes in the rate of exchange between the two countries; for if he possessed a British bill, payable in sterling in London, subsequnt changes in the rate of exchange would not affect the volume of funds which he would receive.

Commercial letters of credit are widely used in financing imports.—The financing of import trade is typically effected through the use of an extremely interesting financial device, developed during the last thirty years, and known as the "commercial letter of credit." A concrete illustration will reveal the nature of this form of credit operation.

Suppose an importer in New York desires to buy $10,000 worth of silk from a firm in Hongkong. The American importer is not known to the Chinese exporting house and it is out of the question for the Chinese exporter to draw a bill of exchange upon the New York importer and secure the funds by discounting the bill at a Hongkong bank. Moreover, since the importer's credit standing is unknown to the Hongkong merchant, the latter cannot well afford to take the chance of shipping the goods on credit and waiting, say, six months for payment. An arrangement is therefore made whereby the credit of the New York house is, in a sense, guaranteed by a financial institution in which the Hongkong exporter may have confidence.

The New York importer goes to his banker and secures a commercial letter of credit. The letter of credit is addressed to the exporter, and it authorizes a bank, say, in London, to accept

the six-month sight drafts of the Hongkong exporter of silk up to a certain total sum and under certain prescribed conditions, pertaining to the attaching to the draft of bills of lading, insurance certificates, etc., these terms all being set forth in the letter of credit. The banker in London is of course notified that the letter of credit has been issued. The letter of credit itself is sent to the Hongkong exporter. Not until the receipt of this letter of credit, which (when confirmed by the London bank) assures him that a responsible financial house is willing to accept drafts drawn upon it and specifies the terms on which the goods are to be shipped, does the Chinese exporter proceed with the shipment of the silk.

As soon as the goods have been shipped, the exporter draws a bill of exchange on the London bank, pins to it the bill of lading and the insurance certificate, and then takes the draft to his local bank in Hongkong, where it is discounted. The whole transaction is then closed so far as the exporter is concerned. It may be added that the Hongkong bank will have no hesitation in buying the draft, because it can either sell it to Chinese importers who must make remittances to London or send it to London directly for collection. It may be added, also, that the development of the American acceptance market would not necessarily lead to a general practice of drawing on American banks in this connection, for the reason that American bills would not be in active demand in Hongkong, the financial relations of which are primarily with England, and also because of the lower discount rate that characteristically obtains in the London market.

The goods are meanwhile on the way to New York. The draft, with bill of lading and insurance certificate attached, is now sent by the Hongkong bank to its correspondent bank in London, which presents it to the bank that has agreed to accept it. It is accepted and marked payable at a definite date, say, April 1. When the draft is accepted, the bill of lading and insurance certificate are detached (in case it is a "documents ac-

ceptance" as distinguished from a "documents payment" instrument), the accepted bill is returned to the bank that presented it, and the bill of lading and insurance certificate are sent to the New York bank which originally arranged the commercial letter of credit. It may be noted that the accepted draft (bank acceptance) may be sold by the bank which has it in its possession to other banks in London, or to individuals desiring high-grade short-term investments. In fact, such an acceptance often changes hands many times during the interval between the date of acceptance and the date upon which it is due.

By the time the bill of lading and insurance certificate have reached the bank in New York, the consignment of goods may also have arrived there. The New York bank therefore turns the bill of lading and insurance certificate over to the importer of the silk, thus permitting the importer to secure the release of the goods and offer them for sale.[1] It will be noted that unless the individual can secure possession of the goods he cannot sell them, and if he cannot sell them, he cannot well turn over to the bank with which the letter of credit has been arranged the funds necessary to pay the London discounting bank. For it must be remembered that in the last analysis it is the importer who does pay for the goods. Concretely, the process of payment is as follows:

The importing house pays to the New York bank $10,000 some time before April 1. The New York bank turns these funds over to the London accepting bank before April 1. On April 1 the London accepting bank pays $10,000 to whatever individual or bank may present the bill for payment. It will be seen, however, that if the importer fails to put the bank in funds before it has to remit to London, the New York bank will have to advance the funds out of its own resources. And, in turn, if the London bank did not receive funds from its New York

[1] In the case of long shipments duplicate documents are often sent direct to New York, in order that the importer may not be delayed in obtaining possession of the goods.

correspondent before April 1, it would have to pay the bill out of its resources. Both banks, therefore, assume some risk; and as compensation each receives a commission, the amount varying but being commonly from one-fourth to one-half of 1 per cent of the amount of the bill for every thirty days that it runs.

It will be seen that after the London bank parted with the bill of lading and insurance certificate it possessed no document of title to the goods; it merely relied upon the good faith of its New York correspondent. Here is credit in its most highly developed form.

In turn, when the New York bank turned the bill of lading over to the importer it no longer possessed title to the goods. An arrangement has been developed, however, whereby the banker does have more than an unsecured promise to pay, even though he parts with the bill of lading which constitutes the title to the goods. For when the bill of lading is offered to the importer, he gives to the bank a "trust receipt," which states that he has received the merchandise and that he will sell the goods and turn the proceeds over to the bank before or at maturity of the bill of exchange. Trust receipts are of various sorts; but it is usual for them to specify that the merchandise is to be kept separate from other merchandise held by the firm, and that the specific funds derived from the sale of the goods are to be turned over to the bank. On the accompanying page is a copy of a typical trust receipt. The "letter of credit agreement" also includes provisions designed to protect the interests of the bank. (See copy on p. 396.)

American banks can now accept "dollar" import drafts.—The Federal Reserve Act of 1913, as amended, authorizes national banks of the United States to accept drafts drawn for the purpose of financing both imports and exports,[2] and accordingly the process of financing imports has entered upon a new phase. Instead of drawing bills of exchange against London

[2] New York state banking legislation shortly fell into line with the Federal Reserve Act and authorized state bank acceptances.

TRUST RECEIPT.

RECEIVED from the GUARANTY TRUST CO. OF NEW YORK the following goods and merchandise, their property, specified in the Bill of Lading per S. S.....Dated..... marked and numbered as follows:

and, in consideration thereof, { I / we } HEREBY AGREE TO HOLD SAID GOODS IN TRUST for them, and as their property, with liberty to sell the same for their account, and further agree, in case of sale to hand the proceeds to them to apply against the acceptances of the GUARANTY TRUST CO. OF NEW YORK on { my / our } account, under the terms of the Letter of Credit No.....issued for { my / our } account and for the payment of any other indebtedness of { mine / ours } to the GUARANTY TRUST CO. OF NEW YORK.

The GUARANTY TRUST CO. OF NEW YORK may at any time cancel this trust and take possession of said goods, or of the proceeds of such of the same as may then have been sold, wherever the said goods or proceeds may then be found and in the event of any suspension, or failure, or assignment for the benefit of creditors, on { my / our } part, or of the non-fulfillment of any obligation, or of the non-payment at maturity of any acceptance made by { me / us } under said credit, or under any other credit issued by the GUARANTY TRUST CO. OF NEW YORK on { my / our } account or of any indebtedness on { my / our } part to them, all obligations, acceptances, indebtedness and liabilities whatsoever shall thereupon (with or without notice) mature and become due and payable. The said goods while in { my / our } hands shall be fully insured against loss by fire.

Dated, New York City,.....191

(Signed).....

£.....Stg.

LETTER OF CREDIT AGREEMENT

To the NATIONAL BANK OF THE REPUBLIC.

Chicago, _____

Gentlemen:

Having received from you Letter of Credit No. _____ *for* _____ *on* _____ *copy of which is herewith annexed* _____ *hereby agree to its terms and in consideration thereof bind* _____ *to reimburse you for any draft or drafts drawn thereunder,* _____ *days prior to maturity thereof, at the current rate of exchange for first-class Bankers' Bills. It is understood that the commission for accepting under this credit is to be* _____ *per cent.*

_____ *hereby give you a specific claim and lien on all goods or merchandise (and the proceeds thereof) for which you may have paid or come under any engagements under this credit, and on all policies of insurance (which* _____ *agree to effect) on such goods or merchandise to an amount sufficient to cover your advances or engagements under this credit, and on all bills of lading given for same, with full power and authority to take possession and dispose of the same at discretion, for your security or reimbursement, and to charge all expenses including commission for sale and guarantee. And* _____ *further agree to give you any additional security that may be demanded. And* _____ *further pledge to you as security for any other indebtedness of* _____ *to you, any surplus that may remain, either in goods or the proceeds thereof after providing for the acceptance under this credit. We further authorize you to cancel this letter of credit at any time to the extent it shall not have been acted upon when notice of revocation is received by the user. This obligation is to continue in force and to be applicable to all transactions, notwithstanding any change in the individuals composing the respective firms, parties to this contract, or either of them, or in that of the user of this credit, whether such change shall arise from the accession of one or more new partners, or from the death or secession of any partner or partners.*

Yours respectfully,

Import Letter of Credit (Dollars)

Credit No. *134567*

$100,000—U.S.C.

Guaranty Trust Company of New York

Foreign Department

New York, *February 11, 1919*

Messrs. John Doe & Company,

Yokohama, Japan

Dear Sirs:

At the request and for the account of *Messrs. Johnson Crawford & Company, New York* we hereby authorize you to value on

Guaranty Trust Company of New York, New York

at *Four (4) Months sight* for the sum or sums not exceeding a total of *One hundred thousand dollars ($100,000)* accompanied by commercial invoice, consular invoice, bills of lading *Marine and war-risk, insurance certificates* representing *cost, insurance and freight* shipment of *Raw Silk from Yokohama, Japan, to New York*

Insurance *Marine and war-risk insurance to be effected by the shippers*

Bills of lading for such shipments must be drawn to the order of *Guaranty Trust Company of New York, New York*

A COPY OF THE CONSULAR INVOICE AND ONE BILL OF LADING MUST BE SENT BY THE BANK NEGOTIATING DRAFTS, DIRECT TO GUARANTY TRUST COMPANY OF NEW YORK, NEW YORK.

The amount of each draft negotiated must be endorsed hereon.

We hereby agree with bona fide holders that all drafts drawn by virtue of this Credit, and in accordance with the above stipulated terms, shall meet with due honor upon presentation at the Guaranty Trust Company of New York, New York, if drawn and negotiated prior to *May 31, 1919*

Guaranty Trust Company of New York

N. B. Drafts drawn under this Credit must bear the clause "drawn under Letter of Credit No. *134567* Dated *February 11, 1919*"

ORIGINAL—ISSUED IN DUPLICATE

banks, it is now possible to draw "dollar drafts," that is, drafts against American banks and expressed in terms of dollars. The practice of drawing upon American rather than foreign banks has been steadily increasing. On page 397 is a copy of a dollar "import letter of credit."

II. FINANCING EXPORT TRADE

Before the establishment of the Federal Reserve System, foreign banks, particularly those of London, played a dominant part in the financing of our export trade. An exporter of wheat from the United States under a letter of credit characteristically drew a bill of exchange on an English bank—a bank that had been designated by the importer of the grain. This accepting bank charged the importer a commission for the loan of its name; and the British banks which have specialized in this acceptance business have found it a source of remuneration that has long been coveted by American bankers.

It should be noted that while the bill of exchange was drawn against a foreign bank, the seller of the grain, in case he desired his funds immediately, took the draft, with bill of lading and other shipping documents attached, to his bank in New York or Chicago and had it discounted. While American banks thus first advanced the funds, the bills were typically soon sent to London where they were carried by London banks which henceforth received the interest thereon.

The use of "dollar" export letters of credit is developing.—With the authorization to American banks to engage in the acceptance of bills drawn for both import and export purposes, it has become possible for American banks to supplant foreign institutions as acceptors of bills, both in the case of direct sales to Great Britain and of shipments to South America, or elsewhere. Suppose A in Chicago sells goods to B in London and requests B to arrange it so that the bill may be drawn against a New York rather than a London bank. The buyer in London accordingly goes to his London bank and asks the bank to open

for him a dollar credit with some New York institution. If the credit standing of the British importer is satisfactory, the bank will agree to arrange a dollar credit with its correspondent bank in New York. It thereupon writes or cables to its correspondent in New York asking that a credit be opened for, say, $10,000 in favor of A, a Chicago exporter. In this arrangement the terms on which the exporter is to be allowed to draw upon the New York bank are set forth and the documents that accompany the draft are designated. As soon as the exporter has been notified that a credit has been arranged with a New York bank, he draws a draft for $10,000 on the New York bank, and then discounts it at his local bank. The Chicago bank in turn sends the draft to New York for payment. The attached documents are then sent by the New York bank to its correspondent in London, which turns them over to the importer in order that the goods may be claimed and released.

The bill in these cases may be a sight draft, in which case it is paid before the documents are given up. But if it is a time bill payable, say, in sixty days, it is obvious that the London bank in parting with the bill of lading is running some risk of loss. If the bank has any doubt as to the credit standing of the importer, it will retain control of the merchandise as security and parcel it out to the importer as partial payments on the amount due are made—in accordance with the terms of a trust receipt or, it may be, merely on terms laid down in the letter of hypothecation.

It will be noted that in this case both the London and the New York banks receive commissions for services rendered: the London bank for arranging with its correspondent in New York to accept the draft, and the New York bank for its service as acceptor. In general, it may be said that the commissions are about equally divided between the British and the American banks. The size of the commissions, of course, varies in different cases, depending upon the risks involved and the length of the credit extended.

Similarly, in financing trade transactions between the United States and South America, it is no longer necessary to call upon a London banking house to accept the drafts drawn under letters of credit. They may now be drawn directly upon American banking institutions. In this connection there has arisen a particularly interesting use of the commercial letter of credit, known as the system of "re-financing." Let us assume that X in New York has sold structural materials of iron and steel to Y in Uruguay. Since the foreign exchange facilities between Uruguay and New York are not well developed, it would be practically out of the question for the importer in Uruguay to buy in Montevideo a draft drawn in dollars, which he could send to X in payment. And since the banks of Uruguay are not well known in the United States, it is also not practicable for the American exporter to draw a draft upon a designated Montevideo bank. At the same time, it will be seen that a draft drawn against the importer in Uruguay could not readily be discounted in New York. Accordingly, the exporter arranges with a New York bank an export letter of credit, under which he may draw a draft upon the New York bank.

The distinguishing feature of this operation is that it involves the drawing of two bills of exchange, the one a trade draft and the other a bank draft. Concretely, the exporter first draws a mercantile bill of exchange on the importer in Uruguay. This instrument, together with the bill of lading and other shipping documents, is turned over to the New York bank which arranges the export credit, and is then forwarded with the shipping document to a bank in Uruguay. Meanwhile, a second draft is drawn by the exporter upon the New York bank,—this as a means of enabling the seller of the goods to obtain immediate command of funds. It may be noted, also, that the bank draft runs for a somewhat longer period than the mercantile instrument, the purpose of this being to insure ample time to receive from Uruguay the funds which the New York bank uses in meeting at maturity the draft which it has accepted. The im-

porter in Uruguay may of course send his remittance in the form of a bill of exchange.

It is argued that the use of dollar exchange will encourage export trade.—The drawing of dollar credit, it is said, will enable the American exporter to avoid paying commissions, shifting this burden to the foreign importer. This common argument, however, overlooks the fact that the question of commissions is usually ironed out in the terms of contract between exporter and importer. While it may apear to the exporter that the use of dollar drafts relieves him of commission charges, such is not necessarily the case.

There is more point to the argument that the use of dollar exchange will encourage foreign export trade through simplifying the financial side of the operation for the American dealer. While the development of foreign exchange facilities by American banks in the last twenty years has made it possible for anyone who knows the ropes readily to arrange export letters of credit and to discount with banks the bills of exchange drawn against foreign banks, many American business men desirous of engaging in export trade are not familiar with the foreign exchange mechanism, and they accordingly hesitate to enter into operations which involve perplexing exchange computations. When bills are drawn in dollars, however, the exporter knows exactly where he stands; he is dealing with his own money; he feels on certain ground. Moreover, the arrangement does enable him to shift the "risks of exchange" to the foreign importer.

The Federal Reserve Act authorized the establishment of foreign branches of American banks.—The authorization of dollar acceptances by the Federal Reserve Act was calculated, as already noted, to encourage foreign trade. It was felt, however, that our foreign trade, particularly that with South America and other relatively undeveloped countries, would be further facilitated by granting permission to American banks to establish branches in foreign countries. Accordingly, authorization

was given under the Federal Reserve law for the development of foreign branch banking.

That the absence of legislation authorizing foreign branch banks is not, however, the sole cause of our restricted exports to South America and other countries may be seen from the fact that under the laws of various states it has long been possible for state banks to establish branches abroad; and private banking houses have always been able to establish such foreign agencies, some private banking houses having in fact done so.

While the advantages of developing branches of American banks in foreign countries have no doubt been greatly exaggerated, it is nevertheless true that the expansion of our foreign trade would be expedited in some degree by the development of American banking facilities abroad. The intimate association of the branch bank managers with business men and importers in foreign countries, together with the acquisition of knowledge on the part of American bankers of the credit standing of foreign buyers, are matters of first importance in developing overseas trade and will no doubt improve our opportunities for a lucrative expansion of our foreign business.

III. THE EDGE LAW AND THE FINANCING OF FOREIGN TRADE

There was in fact a considerable expansion of American banking in foreign countries following the authorization of branch banks by the Federal Reserve Act of 1913. The facilities provided by the law were, however, felt to be inadequate to meet the needs of post-war foreign financing. Accordingly, the Edge Act of December, 1919, has added some new features to our system of financing foreign trade. While the Federal Reserve Act merely made it possible for existing national banks to establish foreign branches, the Edge law provides for the organization of a new type of financial corporation—a specialist in foreign trade and finance.

The features of the Edge law which relate to the furnishing

of fixed capital to foreign countries through the purchase of foreign securities by institutions modeled after the foreign investment trust have been considered in chapter xiv. We need therefore consider here only the provisions of this law which relate to the financing of ordinary shipments of goods abroad.

The general banking powers of the corporations authorized under the provisions of the Edge law are as follows: (1) to purchase, sell, discount, and negotiate, with or without their indorsement or guaranty, notes, drafts, checks, bills of exchange, acceptances, including bankers' acceptances, cable transfers, and other evidences of indebtedness; (2) to accept bills and drafts drawn upon them subject to such restrictions as the Federal Reserve Board may impose; (3) to issue letters of credit; (4) to purchase and sell coin, bullion, and exchange; (5) to borrow and lend money; (6) to receive deposits outside of the United States, and only such deposits wthin the United States as may be incidental to, or for the purpose of, carrying out transactions in foreign countries, or dependencies, or insular possessions of the United States; (7) to exercise such powers in general as are incidental to those conferred by the law, or such . . . . as may be usual in connection with the transaction of the business of banking or other financial operations in foreign countries, colonies, etc.

Finally, these corporations are authorized, under prescribed regulations, to establish and maintain, for the transaction of their business, branches and agencies in foreign countries and in the dependencies or insular possessions of the United States, at such places as may be approved by the Federal Reserve Board.

The Edge law has not been much more successful in promoting the expansion of foreign trade through this second type of financial institution than it was in the case of the first type discussed in chapter xv. Nearly all of our foreign financing is done either through the sale of long-time securities by the regular investment houses or through the extension of short-time credits by exporting concerns and commercial banks.

The development of the use of dollar drafts has, however, been of real significance. New York has assumed an important position as an acceptance market for international bills of exchange. But the exaggerated expectations of the post-war period have not been realized; and it is interesting to note that the elaborate organizations for promoting foreign trade, established by some of the larger metropolitan banking institutions immediately after the war, have now been practically demobilized.

QUESTIONS FOR DISCUSSION

1. How do you account for the importance of London in the field of international finance? Do you think the adoption of the single gold standard at as early a date as 1816 has had anything to do with it?
2. Can you think of any good reason why American banks should not have been allowed to accept bills of exchange until very recently?
3. Why has the London discount rate been characteristically very low?
4. Using the import letter of credit case given in the text, show just how each party to the transaction makes a profit and how each is reimbursed for funds advanced?
5. Read the copy of the "dollar" import letter of credit on page 397, and then show how the American bank in question would finance an importation from the Japanese firm named in the instrument.
6. Do you think the trust receipt is of any especial importance? Would the bank accept the drafts if it had not found by investigation that the importer was good for the amount?
7. Is it important that the bank should have a claim to the specific goods? Answer this in the light of the discussion in the preceding chapter, showing the various ways of extending credit.
8. Why would not an American exporter to Uruguay draw a draft on a bank in Montevideo?
9. Could not the importer in Uruguay pay for his goods by means of a bill of exchange on London?
10. Is it of any particular advantage to the United States to have its own banks do its own financing? Do you object to our paying toll to London? Answer in the light of your knowledge of the principles of international exchange.
11. "Every bank created abroad is the pioneer of national industry and the initial step in uninterrupted relations between the foreign country in question and the United States." Do you agree?
12. "There exist at Rio de Janeiro three German banks who support their

compatriots, facilitate their business, and form a valuable aid to German trade. In face of an obscure French and Italian bank only the haughty Transatlantic German Bank is capable of competing in prestige with the famous bank of London." Does this seem to you probable?

13. "Trade follows the bank even more zealously than the flag." Do you agree?
14. Is there any limit to the amount of trade that can be developed? Do you mean by "trade" exports only, or both exports and imports?

REFERENCES FOR FURTHER READING

Agger, Eugene E.: *Organized Banking,* chap. vii.

Dewey, Davis R., and Shugrue, M. J.: *Banking and Credit,* chap. xxix.

Edwards, George W.: *International Trade Finance,* chap. v.

Escher, Franklin: *Elements of Foreign Exchange,* chap. ix.

Holdsworth, John Thom: *Money and Banking,* chap. xv.

Magee, James D.: *Materials for the Study of Banking,* chap. xix.

Whitaker, Albert C.: *Foreign Exchange,* chap. vii.

Willis, H. Parker, and Edwards, George W.: *Banking and Business,* chap. xvii.

CHAPTER XX

COMMERCIAL PAPER HOUSES AND DISCOUNT COMPANIES

While the chart on page 165 indicates that working capital is typically loaned directly by commercial banks to their customers, it also shows that such credit is often extended indirectly —through the intermediation of commercial paper houses and discount or commercial credit companies. It is the purpose of the present chapter to reveal the nature and the economic significance of the services that are rendered by these recently developed financial institutions.

The commercial paper house is an outgrowth of the note brokerage business that existed in this country in the early years of the nineteenth century. It was not until well after the Civil War, however, that the modern phase of the business developed —the phase, that is, that distinguishes the work of the commercial paper house from pure brokerage; and its greatest growth has come only during the last fifteen or twenty years. The discount companies are of even more recent development. While some of them purchase accounts receivable from many different types of business, these companies, as we shall see, owe their most significant development to the automobile industry and the exigencies with which its financing has been confronted.

A. Commercial Paper Houses

The early business of note brokerage arose in response to a very definite economic need. It was often found by the business men of a given locality that at times it was impossible for them to secure from local banks all the funds which they required; and at certain seasons it was accordingly necessary to seek banking accommodation in other centers. And since it was

not always possible, or at least convenient, for the borrower personally to arrange for loans at a distance, certain individuals seized the opportunity of obtaining commissions by acting as brokers in effecting the sale of notes and bills of exchange owned by merchants and traders. It should be understood that the note broker did not advance the funds to the borrower: he merely undertook to sell the customer's paper in return for a commission; and in case no sale was effected the paper was returned to the borrower. It goes without saying that in order to effect a sale the broker usually undertook to convince the lending banker that the borrower was a man of high character and ability. It must be borne in mind, however, that the broker in no sense guaranteed the paper; his service was merely that of intermediary between borrower and lender.

With the rapid development of the country following the Civil War and the increasing volume of intersectional borrowing that attended the ever widening scale of our economic and financial structure, the note brokerage business was gradually superseded by the work of the commercial paper house—an institution that has aptly been called a "quasi-banking establishment." Some pure note brokerage business, however, still persists.

I. PRACTICAL OPERATIONS

The commercial paper house acts as a broker in that it brings buyer and seller—that is, lending bank and borrowing customer—together, and receives a commission, regularly one-quarter of 1 per cent of the face value of the note; but it is more than a broker in that it advances the funds to the borrower and runs the risk of having to hold the paper until maturity. Where the note broker merely said to the borrower, "I will sell your note to a bank if I can and charge you a commission for the service," the commercial paper house says, "We will advance you the funds on your note and then dispose of the note to a banker if we can; but if we cannot dispose of the paper we will carry the loan until maturity."

It should be understood that the commercial paper house never desires to hold the paper to maturity, that it seeks to make its profits out of the commissions which it receives as middleman. And since its chance of large profits lies in obtaining commissions on a very large volume of sales, it will be seen that carrying paper serves to reduce the profits that can be made. In fact, the cases where the commercial paper house does hold the paper until maturity are in ordinary times relatively few; but in periods of credit strain, the commercial paper house is under the necessity of "carrying" a considerable volume of paper for the benefit of distressed borrowers. It is here that the advantages of the strong commercial paper house, with its substantial capital and surplus, as compared with a mere note broker, are most clearly revealed. It should be observed that in all cases the commercial paper house may have to make a temporary advance of funds, during the interval of time between the purchase of the paper from the borrower and the sale of it to a commercial bank. This interval is normally very brief, for the marketing mechanism has been developed to a point where most paper can ordinarily be very quickly marketed.

The capital of the commercial paper house is relatively small in comparison with the volume of business handled.—The fact that the commercial paper house buys the paper outright and agrees to hold it to maturity in case it is not marketed means that the commercial paper house must have large resources of its own. But the capital employed by commercial paper houses, as in the case of the investment banks, can nevertheless be small in proportion to the volume of business conducted—for the reason that they are in a position to borrow heavily from the commercial banks. In case a house has on hand paper that the market will not absorb, it can borrow the funds necessary to hold the paper until maturity, by using the notes of customers as collateral for a loan. At all times, indeed, the commercial paper house usually borrows a very large percentage of the funds required to finance its temporary holdings of paper.

Suppose during its active season a house has on hand a daily average of $1,000,000 worth of paper. On the basis of its own promissory notes, secured by customers' notes as collateral, it could borrow from eight to nine hundred thousand dollars from the commercial banks. As the notes which are deposited as collateral are sold, either the volume of loans from the banks will have to be reduced or else other notes (newly acquired) will have to be substituted for those withdrawn from the banks. Through its ability to acquire funds for the purchase of additional paper by pledging the notes of its customers as collateral, a house may pyramid its resources many times and thus receive commissions on a tremendous volume of business. Some houses, indeed, handle several hundred million dollars' worth of paper annually. The capital of the commercial paper house, it will be observed, is thus mainly employed as a basis for credit with the banks from which it borrows.

We have said that the commercial paper house seeks to derive its profits from brokerage commissions rather than in the form of interest on loans. It will be noted, however, that interest is received on all paper during the time it is in the possession of the commercial paper house. The profits derived in this connection may be said to represent the difference between the rate which the paper bears and the rate at which the commercial paper house borrows the required funds from the banks. Since the commercial paper house is a very high-grade risk, owing to the fact that it is a responsible financial institution and offers excellent collateral besides, the rate at which it can procure funds is typically a little lower than that of an ordinary borrower on unsecured paper.

The commercial paper house may, however, sometimes make a profit and sometimes sustain a loss, owing to a difference between the rate at which it discounts the borrower's note and the rate at which it disposes of the paper to banks. In an ordinary steady market there is seldom any difference between these rates, but during periods of rapidly changing financial condi-

tions there may be an appreciable margin. When there is a precipitate fall in money rates, the commercial paper house finds its commission, in effect, supplemented; but when there is a sudden rise in interest rates it may find that the loss sustained is more than enough to cancel the amount of the commission.

The commercial paper house carefully analyzes credit risks.—Since the commercial paper house is a lender of funds, pending the sale of the paper to the banks, and since it risks its own resources in making such advances, it is obviously incumbent upon it to make a careful investigation both of the conditions of the money market in general and of the credit standing of each particular borrower.

> The broker must exercise great prudence and foresight in making his loans. He must follow closely the trend of the times, be possessed of a good knowledge of business conditions in general, understand and anticipate the effects of larger seasonal demands for money, such as attend the moving of the crops in the fall; he must study the possible results of pending legislation and international entanglements, and be prepared for a multitude of other situations that might affect the status of money and credit in the country.[1]

It is necessary for commercial paper houses to make a careful analysis of the business integrity and the financial position of the borrower as recorded by a balance sheet or financial statement. The better houses have, in fact, developed elaborate credit departments, which are equipped to analyze credits with an efficiency equal to that of the credit departments of the large commercial banks. At least one has also established a statistical and research department, the general investigations of which supplement in a most effective way the work of the credit department.

While commercial paper houses analyze the credit standing of borrowers before purchasing their paper, it is important to note that they do not guarantee the paper—they merely warrant that it is legally executed and that it is the genuine promise

[1] From an address by Walter McAvoy delivered before the Mississippi Bankers' Association, March 12, 1918.

to pay of an actual person or corporation. The banker buys the paper, not on the strength of the commercial paper house's indorsement, but on the strength of the borrower's own financial standing. Indeed, the commercial paper house does not indorse the paper which it handles. A note is made out "pay to the order of ourselves," rather than to the order of the commercial paper house; and is then indorsed in blank by the makers. It is accordingly unnecessary for the commercial paper house to attach its name to the document, for the title is transferable by mere delivery.

In lending funds through the purchase of commercial paper, the bank must either rely upon the analysis that has been made by the commercial paper house or make an independent credit investigation of its own. It will be seen that, since the commercial paper house has risked its own funds, a banker might well assume that the commercial paper house has made a reasonably careful investigation. And the commercial paper house does in fact recommend its paper in much the same manner that the investment banking institution recommends, but does not guarantee, the bonds which it handles. In the case of the larger banks, however, an independent investigation is usually conducted, the paper being bought on a ten-day option, thus giving the bank an opportunity to make its own investigation. If after investigation the bank does not wish to carry the paper, it is returned to the commercial paper house, which then seeks another buyer.

Small country banks, with inadequate facilities for credit investigation, particularly at long range, find it practically impossible to make an independent investigation. Accordingly, they rely either upon the recommendation of the commercial paper house or upon that of a large correspondent bank which has had dealings with the concern whose paper is being offered for sale. A very great amount of paper is now, in fact, annually sold by the commercial paper houses to banks which purchase the paper merely on the recommendation of the commercial pa-

per houses. The credit analysts in these houses therefore play an important part in directing the flow of funds, and thus of labor and capital, between the different divisions of industry and the different individual establishments in any given line of enterprise.

It is of interest to note, also, that in recent years many commercial paper houses frequently make loans that are secured by stocks and bonds as collateral. Some banks prefer such paper, since it relieves them of the necessity of making a careful credit analysis, the confidence being based mainly on the collateral rather than on the financial standing of the borrowers. Such paper, however, usually bears a slightly higher rate than that which is unsecured, for the reason that the bank which holds it is not permitted to rediscount it at a Federal Reserve bank.[2]

Some of the larger commercial paper houses also conduct a regular bond department.—This has proved a very successful diversification of functions. The two businesses dovetail very well together, since a great deal of corporation financing originates with a commercial paper clientèle, with whom cordial relations have been established. The maintenance of a bond department is of particular value in periods of financial liquidation. The bond business tends to be good in periods of commercial depression, since a large amount of refinancing operations are necessary. Accordingly, a house which sells both commercial paper and bonds is in a much better position to weather a period of hard times than is one which specializes purely in commercial paper.

The operations of commercial paper houses are conducted on a national scale.—A large percentage of the business of commercial paper houses is inter-city in its nature. A house in Chicago, for instance, will solicit paper from business concerns all over the Middle West and West; indeed, it may solicit business

[2] For provisions of the Federal Reserve Act governing rediscounting see p. 561.

practically anywhere in the United States. Many of the larger borrowers, however, have an eastern and a western broker, and it is then agreed that the eastern broker shall place no loans west of Pittsburgh and vice versa.[3] Not only is the paper solicited over a wide area, but purchasing banks are sought everywhere. Thus a note of a borrower in Akron, Ohio, may be sold to a bank in Minneapolis; and paper of a corporation in New Orleans may find lodgment with a banker in Pittsburgh.

Commercial paper houses, however, also act as intermediaries between borrowers and banks within the same city. In Chicago, for instance, the paper of the packing houses is sold to a large number of Chicago banks, both to the larger institutions of the financial district proper and to the many outlying suburban banks. Such paper, it may be noted, is purchased by banks largely without independent investigation.

Notes sold through commercial paper houses usually run from four to six months' time, the latter duration being ordinarily by far the more common. Since the borrower pays a commission on the amount borrowed—usually one-quarter of 1 per cent—it is to his interest, where he has a continuous need for funds, to secure one loan for six months rather than two loans for three months each. Indeed, it would often be to his interest to borrow for even longer periods; but the banks prefer not to tie up funds at a given rate of interest for a very long interval.[4] Commercial paper notes were formerly usually made out in five- and ten-thousand-dollar denominations. But during the war period the entrance into the commercial paper market of a large number of small state and national banks, whose lending power is restricted, has led to the issue of a very large volume of notes in denominations of twenty-five hundred dollars.

It remains to be noted that the commercal paper business

[3] The Pacific Coast states have also recently been set off by some houses as a separate territory.

[4] For a consideration of the problem of the liquidity of bank loans see pp. 509–11

was given a great impetus by the development of the Federal Reserve System. As we shall later see, the Federal Reserve law places great emphasis upon commercial paper—not specifically on paper handled by the commercial paper houses,[5] but on paper that owes its origin to actual commercial operations. Such paper was intended to constitute, in fact, the basis of all borrowing operations between individual banks and the Federal Reserve institutions.[6] The paper handled by these institutions was thus placed in a preferred class and given an exceptional amount of free advertising. The growth of the commercial paper business was accordingly greatly accelerated.

At the present time there are twenty-six commercial paper houses in the United States whose business is national in scope, and there are a number of smaller concerns which do mainly a local business. The larger houses have numerous branch offices, one New York house, for example, having branches in Boston, Hartford, Philadelphia, Pittsburgh, Detroit, Chicago, St. Louis, Atlanta, New Orleans, Los Angeles, San Francisco, and Seattle. The total volume of paper handled by these institutions has fluctuated considerably during recent years, in connection with the ups and downs of the business cycle. Early in 1920, 26 large houses reported a total of approximately $1,300,000,000 of paper outstanding. In 1921 the total of these houses was down to about $700,000,000, and in April, 1925, it was approximately $800,000,000. Since the notes ordinarily run for six months, the annual volume of business may be taken to be, roughly, twice the amount outstanding at any given date.

The commercial paper houses should be subjected to regulation.—Although the old note brokers have emerged into quasi-banking corporations, they have never been subjected to any restrictive or guiding legislation, their principles of operation having been developed by strictly pragmatic methods. There

[5] The term "commercial paper," as used on the street and in the financial press, means only paper purchased through commercial paper houses.

[6] See pp. 561–62.

was some agitation a few years ago for the registration with a central agency of all the commercial paper issued by business concerns, as a means of preventing the selling of notes by any one borrower through a large number of houses simultaneously, and thereby greatly overextending its credit; but little has been heard of this proposal in recent years. The liquidation period following 1920 proved a severe test for commercial paper houses. In the flush times between 1915 and 1920, many houses of small resources and comparatively loose methods came into existence and profited greatly. But since 1920, a good many of these have failed and there has been a general tendency toward consolidation and retrenchment, so that the business is being concentrated more and more in the hands of fewer houses of relatively large financial resources.

While such houses undoubtedly conduct their business on a highly efficient and conservative basis, they should nevertheless be subjected to state regulations and control. The well-managed concerns have nothing to fear from such regulation; and the reputation of the business as a whole would be safeguarded if the smaller concerns, which are organized in every period of active demand for funds, were made to conform to certain general regulations which experience has shown to be necessary.

II. THE ECONOMIC SIGNIFICANCE OF COMMERCIAL PAPER HOUSES

The commercial paper house is of service alike to borrowers and banks. It is of service to borrowers in that it makes it possible for any business in good credit standing to secure needed funds, even though the supply that can be furnished by the local banks has been exhausted. In view of the marked seasonal variations in the demand for funds, it is the rule rather than the exception that at certain seasons of the year the supply of local funds is insufficient for the community's needs. In many cases, moreover, a large borrower is effectively debarred from securing from a local bank all the accommodation required by the legal

provisions of our banking laws, which restrict, in the interest of a wide diffusion of risks, the loans that may be made to any one borrower.[7]

Quite as important to the borrower is the fact that the commercial paper house enables him to secure his funds in the cheapest market. It may be that the supply of available funds in a given community is merely low—not exhausted—or that the local bank itself could procure funds from correspondent banks in other centers. Under such circumstances the borrower would have to pay very high rates for funds, were it not for the ready access to the general credit market which the commercial paper house makes possible.

From the standpoint of the bank, the purchase of commercial paper offers an opportunity for broadening the field of its operations—it opens up avenues for the profitable investment of funds that are not needed during periods of slack local demands. It also relieves the banker in times of local stringency from the responsibility of straining unduly his own credit resources in caring for customers' needs.

Not only does the purchase of commercial paper permit the investment of a plentiful supply of "seasonal" money in other sections; but it permits banks whose resources have become permanently greater than the needs of the communities in which they are located to enlarge, notwithstanding, the volume of their business. The normal growth of many a bank has been more rapid than that of the community in which it is located; and it is of the highest practical importance that an outlet for its surplus earnings should be available. The total volume of business in many communities is, moreover, not sufficient to absorb all of the lending power of even a very small bank; hence access to the general lending market is indispensable to the success of the institution. This is particularly the case with small suburban banks which find restricted lending opportunities in their immediate environs.

[7] See legal provisions, pp. 531–32.

Even where the total resources of a given community are sufficient to absorb all of a bank's available funds, it is still often important that an outside source of lending be available as a means of more widely distributing its risks. Where the local industry is of a specialized nature or where the number of borrowers is relatively small, a local bank cannot secure a wide distribution of risks unless it resorts to the open market for the purchase of paper. The wider diffusion of risks that is made possible by the commercial paper house thus tends to lessen the possibility of bank failures and to strengthen the general credit structure. There are many cases of suburban banks, particularly, where the purchase of commercial paper opens up an avenue of investment which is highly desirable from the standpoint of the bank's ability to meet its deposits on demand.

Commercial paper houses act as distributors of the supply of liquid capital.—From the viewpoint of the larger economic organization, it may be noted that the commercial paper houses are distributors of capital from places where it is relatively abundant to places where it is relatively scarce. In a country of great geographical area and of very diverse economic interests, there is frequently a considerable variation in the demand for funds in different sections. Periods of tight money in one region may be periods of relatively easy money in others. As intermediaries between banks and borrowers in different parts of the country, the commercial paper houses give flexibility to the financial system by quickly moving funds to the places of greatest need. This not only tends to equalize interest rates throughout the country but it facilitates productive activities in regions which at times would be cramped for want of funds; and in general it permits a fuller and a more constant utilization of the financial resources of the nation than would otherwise be possible.

This equalization of the supply of funds in different centers, together with the fuller utilization of productive resources that is thereby made possible, is obviously not without its effect upon

the cost of conducting business. It may therefore be said that the commercial paper house finds both its opportunity for obtaining profits and its social justification in the contribution that it makes to the efficient utilization of financial and economic resources in the production of wealth.

B. Discount Companies

In recent years there have developed a number of other financial institutions, whose work, like that of the commercial paper houses, is mainly that of intermediary between borrowing businesses and lending banks. The institutions in question are variously designated as discount houses, finance companies, commercial credit companies, commercial acceptance trusts, automobile banks, etc. It is somewhat difficult to describe the work of these companies, for the reason that the terminology commonly employed in describing their operations is far from uniform—and the principles of operation themselves are not highly standardized. Moreover, since certain houses specialize in a particular type of operation, while others engage in more than one form of financial enterprise, it is impossible to state that the financial institutions in question are always conducted on principles thus and so. There are, however, at least two distinct types of financial enterprise which may be differentiated: (1) the purchase of accounts receivable from business concerns—in various lines—which are in need of additional working capital; and (2) the financing of the distribution of automobiles and other products that are commonly sold on the instalment plan.

I. PURCHASING ACCOUNTS RECEIVABLE

There are two principal reasons why business concerns on occasion sell or assign accounts receivable: (1) to secure the necessary funds with which to postpone or forestall financial insolvency; and (2) to secure additional working capital with which to expand the volume of business. The first practice is usually regarded as "illegitimate" financing, something to be

frowned upon by all conservative and constructive business men. The second—a development of the last fifteen years—is, as we shall see, in a very different category. Let us consider each in turn.

1. *Assigning of accounts by concerns that are financially involved.*—Suppose a certain business, which has $10,000 of accounts receivable, is in financial straits and must have immediately, say, $5,000 in cash. Unable to borrow on its own note, and having neither customers' notes nor trade acceptances available for discount at a commercial bank, it still has in its accounts receivable a resource which can be converted into cash through the intermediation of a discount house. By purchasing these accounts at a substantial discount and collecting them in full at maturity, a discount company can at once provide the necessary financial assistance to the enterprise in question and earn a profit for itself. The discount company receives the funds which it advances partly from its shareholders, but more largely from the commercial bank from which it borrows on its promissory note, secured by the purchased accounts as collateral. The amount of the discount varies somewhat, but in the nature of the case the rates are very high, usually ruinously so.

Concerns which sell accounts receivable are commonly viewed with suspicion by the commercial bankers. It is argued that the high interest rates at which such loans are secured are prohibitive, and that the credit standing of the concern is thereby seriously impaired, with the result that eventual bankruptcy is rendered the more certain. While this is undeniable, generally speaking, there are doubtless numerous cases where enterprises, temporarily embarrassed, have thus been tided over a difficult period in their history.

2. *The sale of accounts by "well-rated" concerns as a means of increasing working capital.*—There has been developed in the last few years a new type of discount or commercial credit company—one whose function is to furnish funds, not to concerns that are financially involved, but to well-rated enterprises, which

are in a position to make an effective use of more money than they can secure through regular banking channels.

In periods of very active business, particularly, many concerns find that after they have utilized the full lines of credit extended them by the commercial banks they could make a profitable use of more funds. Indeed, even before the maximum line of credit at the bank has been utilized, a concern often resorts to the sale of receivables in order to keep some of its bank credit available for an emergency. The money borrowed may be devoted to expanding the volume of business through the purchase of additional raw materials or merchandise, or it may be used to pay off trade bills, thereby saving the discount that is offered for early cash payments. While the rates charged for such funds are high, the cost is usually less than the amount of the cash discount on trade bills which can thus be saved.

The character of the business concerns which make use of such credit sources may be seen from the fact that one discount house in 1918 made 77½ per cent of its $55,000,000 of loans to customers whose commercial ratings were of the first or second classes. Nearly 75 per cent of the customers, moreover, were concerns rated above $35,000, some of them at more than $1,000,000, the average size being between $50,000 and $75,000. It should be clearly understood, however, that while the concerns which borrow in this way may typically be well rated and of fair size, the resort to the sale of accounts receivable as a means of raising funds indicates a credit condition temporarily such that commercial banks are unwilling to lend them more.[8] Concretely, the concern's ratio of quick assets to current liabilities is as a rule considerably less than what is customarily insisted upon by the commercial bankers.

The high-grade credit companies engaged in such financing operations sometimes discount the accounts receivable, but more commonly they make a "service charge" instead. For instance,

[8] Except of course in cases where the bank credit line is being held open, as noted above.

one large commercial credit company advances about 80 per cent of the face value of each account at the time of purchase, and the balance as it is collected. It derives its profit by a gross charge of one-twenty-fifth of 1 per cent on the net face of accounts for each day, or a little over 1 per cent a month, plus $5 per $1,000 on the first $100,000 worth of purchases from any concern in any one year. In order that the customers of a concern may not be disturbed, an arrangement is made whereby the borrower may do his own collecting; thus the customers need not know that their accounts have been sold. This is known as the "non-notification" plan.

This company makes a careful credit investigation both of the customers who owe the accounts receivable and of the seller of the accounts. It makes use of Dun's and Bradstreet's commercial ratings, and will not buy from any one concern the accounts of customers having a poor credit rating to an amount in excess of 20 per cent of the total volume of accounts purchased. As a further means of minimizing risks it also seeks to have its accounts from each borrower as widely distributed as possible.

The company makes a careful investigation of the credit standing of the seller of accounts, including an analysis of his financial statement, for the reason that in the last analysis the seller of the accounts is looked to for payment. Indeed, the seller is required to warrant the accounts, thus assuming a secondary or contingent liability. Inquiry is also made as to the use of which the borrowed funds are to be put; and the loan is ordinarily refused if the money is to be devoted to an increase in fixed rather than working capital. The discount company is thus reasonably well protected from loss. These methods are typical of the largest institutions.

Discount companies borrow heavily from commercial banks.—The capital and surplus of these concerns serve largely as a basis for credit with the banks from which they borrow (usually) on single-name promissory notes secured by collateral. One conservative company, with a capital stock of $1,320,000, in

1920 had a maximum loan account at the banks of $4,302,000, with an additional $402,000 borrowed through a commercial paper house. It is not uncommon, however, to find the volume of borrowed funds from five to ten times the amount of the company's capital. In seeking a loan the company always presents a financial statement showing its resources and liabilities. The average cash balance on hand, plus the average monthly collections, usually exceeds the total of all notes payable. It is necessary for these companies to maintain a high credit standing with the banks, for they are almost continuously dependent upon them for funds. On account of the large losses of recent years some of the banks and commercial paper houses will now purchase finance paper only when its payment is guaranteed by one of the large surety companies.

The selling of accounts receivable by a business concern in need of funds with which to expand its business is usually justified economically on the ground that it is the most convenient as well as the cheapest means of securing the additional capital required. It is more convenient than a resort to the sale of additional stock and at the same time it does not permanently increase the capital. Because of the necessity of formulating business policy with a view to long-run conditions—for periods of depression as well as for times of great business activity—this ability to expand capital resources by short-time borrowing rather than by permanent capital contributions is a matter of genuine importance.

Does credit extension by credit companies result in dangerous business expansion?—One question of genuine moment must be raised at this place. Is the expansion of business that is thus made possible economically desirable? Would it not be better if the verdict of the commercial bankers were allowed to stand—the verdict that the concerns in question have already borrowed as much as their financial status warrants? Does such credit extension not lead to undue or dangerous expansion? It should be observed in this connection that while the commercial banks

would not directly extend so large a volume of credit to borrowers as they secure through the aid of these financing corporations, the funds secured are nevertheless largely drawn from the commercial banks by an indirect process. Where it would be regarded as unsafe to make additional direct loans to the borrowers in question, the inter-position of a strong financial intermediary renders the indirect extension of such credit eminently conservative. But safety to the lending banks, immediately speaking, is one matter and safety to the general business and credit structure in the longer run, is another. It may reasonably be contended that during periods of great business activity and attending financial strain the added expansion of credit which these institutions make possible only serves to make the task of eventual credit contraction and business readjustment the more difficult. While this question cannot advantageously be pursued farther at this place, the discussion of the phenomena of business cycles in chapter xxii below will throw much additional light on the issue raised.

From another point of view, however, such credit extension presents itself in a much more favorable light. If the funds borrowed are used to save the cash discount offered by mercantile creditors rather than to attempt an expansion of the total volume of business through the purchase of additional raw materials or stocks, the result is undoubtedly beneficial from the point of view of the general credit situation.

II. THE FINANCING OF AUTOMOBILE DISTRIBUTION

The extensive growth of the automobile industry during the last twenty years has given rise to a very interesting system of financing the distribution of the product.[9] The institutions engaged in this financing are variously known as commercial credit companies, discount houses, and automobile banks. Some of

[9] Very few companies were in existence before 1914 and none, apparently, for more than two or three years.

them are specialists in this field and others are not. For instance, the commercial credit company described above devotes a large percentage of its resources to the purchase of automobile paper. It should also be kept in mind that some houses also deal in piano, furniture, and other paper, growing out of the sale of goods, principally household commodities, on the instalment plan. For convenience of expression, we shall, however, here designate the institutions in question as automobile banks. It is estimated that there are now as many as 1,400 finance companies of one type or another in the United States.

The reasons for the development of the automobile bank are inherent in the nature of the distribution end of the automobile business. The automobile, despite the current assertions that it is a necessity, has always been looked upon by the commercial bankers as in a different class from staple products—as involving relatively large risks. Automobile dealers, as distinguished from the manufacturers, commonly have relatively small resources; they buy cars largely on credit and in turn sell them largely on credit. It has been estimated, indeed, that 65 per cent of the passenger cars and 90 per cent of the trucks are sold on time. Since the automobile is ordinarily in the nature of a luxury, it quickly becomes a drug on the market in a period of business depression, and since second-hand cars are subject to very heavy depreciation, commercial banks have not been willing to extend credit to automobile dealers in proportion to their requirements in periods of rapid expansion. The automobile discount company was developed to meet the financial requirements incident to this situation, to enable the automobile industry to grow as rapidly as the demand for its products required.

The work of the automobile bank is similar to that of the commercial paper houses and discount companies described above. It is something more than a broker in that it advances the funds to borrowers, and it is something less than a bank in that as a rule it promptly shifts to the regular banks the burden of carrying the loan. While similar to the institutions already

described, it has nevertheless evolved certain distinct financial methods.

There are two types of automobile financing operations to be described. First, certain large credit companies extend what may be called wholesale credit to automobile dealers; second, there are many smaller financing corporations which specialize in the making of retail loans secured by the instalment notes of the ultimate purchasers of the cars. While some companies engage in both types of operations, as well as in the purchase of accounts receivable from other businesses, as described in the section above, it will make for clearness if we describe the different operations as though the institutions engaging in them were specialists.

1. *The wholesale plan.*—The financing conducted under the first plan is designed to enable the dealer to secure the funds with which to pay the manufacturer for the cars without waiting for their sale to, or at least without waiting for final payments from, customers. In a sense they are therefore financing the manufacturers, themselves. The loans are made to the automobile dealer, who gives his promissory note to the automobile bank, together with chattel mortgages on the cars in his possession. It should be stated, however, that it is only in certain states that we find the chattel mortgage. In some states a trust receipt is used, and in still others a conditional sale agreement is employed, the particular type being determined by the varying laws of different states. Specimens of a chattel mortgage and of a conditional sale agreement will be found on pages 426 and 429. Both have the regular forms for assignment on the back.

When cars are stored "on the floor" the chattel mortgage or other document covers a particular car, which can be disposed of only on terms laid down in the agreement with the automobile bank. There have been many cases of fraud and deception, however, in connection with this floor plan, chattel mortgages often being given on cars which do not exist, or which are not owned by the dealer in question; and there have been cases of

secret sale of the car against which the mortgage stands. Where cars are stored in a warehouse, however, the warehouse receipt is turned over to the automobile bank. In such a case the bank is much more adequately protected; and, it may be added, the loan is usually more nearly equal to the full value of the car.

Chattel Mortgage

Know all Men by these Presents, That.....of
(Mortgagor)
..... hereinafter called the Mortgagor, in consideration of
..... Dollars ($.....) received to the full satisfaction of the
Mortgagor; of.....of.....
(Mortgagee)
.....hereinafter called the Mortgagee, has granted, bargained, sold, assigned, transferred and set over, and by these presents does grant, bargain, sell, assign, transfer and set over, unto the said Mortgagee, the following described personal property, now remaining and being in the possession of the Mortgagor, to wit:

One Motor vehicle manufactured by..... No.....
Model..... List price..... together with all added and substituted parts and equipment placed upon the property during the life of this mortgage, whether because of necessary repairs or otherwise, to have and to hold all and singular said personal property and additions thereto, above granted, bargained, and sold or intended to be granted, bargained and sold unto the Mortgagee.

The conditions of this mortgage are such, That whereas the Mortgagor has executed and delivered unto the Mortgagee a certain promissory note of even date herewith, for the purchase money for the hereinbefore described property in the sum of.....
.....Dollars ($.....) due.....with interest at the rate of 6% per annum:

Now if the Mortgagor shall well and truly pay said promissory note with interest as hereinbefore provided and shall faithfully keep and perform all the conditions hereof, at the time and in the manner specified (time being of the essence of this contract), then this mortgage shall be void, otherwise the same shall be and remain in full force and effect.

And the Mortgagor hereby declares that he is the true and lawful owner of the above described property, and has good right to sell, convey and encumber the same, and that the same is free from all encumbrances whatsoever.

The Mortgagor agrees that the said motor vehicle shall be located and kept at ..... Street, in the city of ..... State of..... and not be removed therefrom except for installation of body; then same must be returned to said premises within thirty (30) days thereafter and further agrees not to rent said motor vehicle or transfer his interest therein, and that while said motor vehicle is in possession of Mortgagor it shall not be operated or moved under its own power and shall be kept in good repairs, free of all liens, charges and taxes.

The Mortgagor further agrees that if default be made in payment of said note or said amount of money and interest, or in the performance of any of the conditions herein contained on the part of the Mortgagor to be performed at the time and in the manner herein specified or in case the Mortgagor should commit any waste or misuse and not keep the property in first class condition or should attempt to sell, secrete, convert or remove the property without the written consent of the Mortgagee, or if the property should be seized upon mesne or final process had against the Mortgagor, or if the Mortgagee, at any time before or after the maturity of said promissory note, or before any of said amount of money and interest becomes due, shall deem it necessary for the more perfect and complete security of the claim of the Mortgagee, then the Mortgagee is hereby authorized, and empowered to enter any premises of the Mortgagor, or other place where the property may be, and take possession of the property, without notice or demand and without legal procedure; said notice and demand being hereby expressly waived, and immediately sell the property at public or private sale, without notice. The Mortgagor hereby grants unto the Mortgagee the right to become the purchaser thereof, and out of the proceeds thereof, to retain and pay said note with interest and all other amounts that may become due under the conditions of this mortgage and to pay the expenses of said sale, including expenses incurred in taking possession of and keeping the property, and to pay any and all liens that may be thereon having priority over this mortgage, to pay charges for placing the property in good saleable condition and to render the surplus money to the Mortgagor. It is expressly agreed that if the unpaid balance on the note due to the Mortgagee together with the interest provided and all other amounts that may become due under the conditions of this mortgage, shall not be realized by said sale, the Mortgagor shall pay to the Mortgagee such deficiency upon demand.

No waiver of any of the conditions of this mortgage shall be deemed to have been given by the Mortgagee, unless the same be in writing and signed by the Mortgagee, and the Mortgagor further agrees that this mortgage contains the entire agreement entered into with the Mortgagee.

The terms hereof are and shall be binding upon and for the benefit of the heirs, executors, administrators, successors and assigns of both the Mortgagor and Mortgagee.

EXCEPT AS HEREINTOFORE PROVIDED, THE MORTGAGOR SHALL REMAIN AND CONTINUE IN POSSESSION OF THE PROPERTY AND IN FULL ENJOYMENT OF THE SAME.

IN WITNESS WHEREOF: The Mortgagor has hereunto set.....hand and Seal this.....day of.....A. D. 19.....
SIGNED AND DELIVERED IN PRESENCE OF:

....[SEAL]
(Mortgagor)

..... By.....

STATE OF .....} ss.:
.....

Since the dealer is constantly selling cars, it will be seen that the security commonly passes out of his possession during the life of the loan. But under the terms of the agreement with the dealer, the claim against the car still rests with the automobile bank. It should be observed, however, that the bank does not look to the individual who has purchased the car on the instalment plan for a payment; he still looks to the dealer, to whom he has made the loan and whose note he holds

It will be seen from the foregoing that the credit standing of the dealer to whom the loan is made is of paramount importance. Accordingly, the automobile bank makes a careful investigation of the dealer's moral and financial standing, even requiring him, as a rule, to furnish a statement showing his financial condition. While each particular loan is in fact secured by a chattel mortgage on a particular car, the main reliance is nevertheless placed upon the dealer's general responsibility. Loans made to dealers in this way commonly run for two or three months. While the loans are made to the dealer, it should be added, however, that where cars are held in storage, it is customary for the manufacturer to guarantee the payment of the loan. Thus the automobile bank often has two-name paper.[10]

Such companies derive their profits from a gross "service charge" similar to that described above in connection with the purchase of accounts receivable. This charge covers interest and profits and also insurance against theft and fire. The company will not make a loan on an uninsured car; and by acting as agent for an insurance company, it obtains a large commission on all insurance that is written. The service charge varies somewhat, but is always high enough to insure a very handsome return to the company.

2. *The retail plan.*—A concrete illustration of the practice followed by a particular company will indicate the difference between the retail method of financing and that which we have

[10] The manufacturers, however, practically never guarantee the payment of *retail* loans. There is apparently but a single exception to this rule.

just described. Let us assume that a dealer has sold a car valued at $6,000 and has received $1,000 down and for the remainder instalments notes of $500 each, payable monthly.[11] A chattel mortgage is also given by the purchaser. The dealer borrows $4,000 from the automobile banker, putting up the $5,000 in instalment notes as collateral security. The dealer usually guarantees the payment of such notes. The bank loan is typically, as in this case, 80 per cent of the value of the notes offered as collateral security. Since the purchaser's notes are paid in monthly instalments and the dealer is required to pay his loan to the automobile bank in monthly instalments, it will be seen that the margin of security possessed by the automobile banker gradually increases.[12]

It is the common practice with these smaller companies to *discount* the dealer's notes, usually at 5 per cent. And since the notes usually bear interest at 7 or 8 per cent, the company always secures 5 per cent on the face of the note plus, say, 7 per cent interest on that portion of the loan which it finances out of its own resources. Moreover, since the company can usually borrow from the commercial bank on its own note, secured by the instalment notes received from dealers as collateral, at a rate lower than that which the notes themselves bear, it will be seen that some additional profit is thus procured. It will be apparent, however, that it is the 5 per cent discount that constitutes the main source of income.

[11] The average duration of such credit extension is about eight months.

[12] It does not always happen, however, that the margin of security increases. Some small finance companies put up monthly payment collateral, with 20 per cent margin, to secure a 90-day loan, but with the understanding that none of the collections on the collateral during the 90 days need be paid to the bank until the loan matures. Thus, the beginning margin on a loan of $120,000 would be $20,000; but at the maturity of the loan, when $25,000 which should have been collected has been retained by the borrower, the bank has $5,000 less than no margin. (From an address entitled: "Finance Companies from the Viewpoint of the Company" by A. E. Duncan, chairman of the board of five important credit companies.)

Conditional Sale Agreement

ORIGINAL

This Agreement, made this .....day of....., 19....., between.....
(Stamp dealer's name and address here)
first party, his or its successors, agents or assigns (hereinafter, collectively called "Seller") and
.....
(Purchaser's name and address here)
second party (hereinafter called "Purchaser"), WITNESSETH:

THAT Seller in consideration of the payments, covenants, agreements and conditions herein contained which on the part of the purchaser are to be made, done and performed, has this day sold and delivered, but upon the conditions hereinafter recited, to the Purchaser one.....No.....,
(Make of car here)
Model.....(hereinafter called the "Car") for.....
Dollars ($.....), paid or to be paid by the Purchaser to the Seller or order.....
.....Dollars ($.....) upon the execution of this agreement and the balance
.....Dollars ($.....) in instalments as follows:

$.....on....., 19.....	$.....on....., 19.....
$.....on....., 19.....	$.....on....., 19.....
$.....on....., 19.....	$.....on....., 19.....
$.....on....., 19.....	$.....on....., 19.....
$.....on....., 19.....	$.....on....., 19.....
$.....on....., 19.....	$.....on....., 19.....
$.....on....., 19.....	$.....on....., 19.....
$.....on....., 19.....	$.....on....., 19.....
$.....on....., 19.....	$.....on....., 19.....

which instalments of purchase price shall bear interest at the rate of six per cent. per annum from date and are to be evidenced by promissory notes made by the Purchaser to the order of the seller, bearing date hereof and maturing on the due dates of said respective instalments.

The Car is subject only to manufacturer's warranty, if copy of such warranty is annexed hereto; and if not so annexed, Purchaser buys Car as it stands, and no warranty, guaranty or representation as to the Car or any of its equipment is otherwise made or given by Seller.

THE CONDITIONS OF THIS AGREEMENT ARE, that delivery of the Car by Seller to Purchaser does not pass title thereto, but both the Car and the title thereto shall not pass by such delivery but are and shall remain vested in and be the property of the Seller and assigns (and any extension or assignment of said notes shall not waive this or any other condition herein contained) until said notes evidencing said instalments of purchase price are paid in full.

Upon any default in the payment of the principal or interest of any of said notes, then any holder of any of the notes then unmatured may at his option declare all of said notes immediately due and payable and the same shall thereupon become immediately due and payable. The Purchaser until said notes are paid in full shall not sell, let, assign, encumber, use for hire or dispose of the Car (without written consent of the Seller) and the Purchaser shall keep and maintain the Car in good order and repair. Purchaser shall keep the Car free of all liens, taxes and charges and shall at his expense and in his name cause the Car to be registered and licensed in compliance with law. Upon any default in payment or breach of condition or covenant herein made by the Purchaser, or if the Seller shall deem the security for the payment of said notes intended to be afforded hereby insufficient or unsafe, the Purchaser shall on demand by the Seller forthwith deliver the Car in as good condition as when received by Purchaser upon sale thereof (ordinary wear and tear excepted) to Seller, and should Purchaser fail or refuse upon such demand to deliver the Car as aforesaid to Seller, the Purchaser agrees that the Seller shall have the right without any further notice or demand forthwith to take possession of the Car, wherever found, and for such purpose Purchaser hereby licenses and authorizes Seller to enter any premises of the Purchaser with or without force or process of law, and forthwith take possession of the Car, if Seller shall so take possession of the Car by reason of any default or breach hereof or with respect to said notes by Purchaser, Purchaser agrees that all payments made by Purchaser with respect to the indebtedness represented by said notes shall belong to and retained by Seller, as liquidated damages for the non fulfillment or breach of performance of this agreement, for loss in value with respect to the Car, and for the rental value thereof. Seller may, at option, by collection suit or otherwise, enforce payment of said notes, and no suits or legal proceedings with respect thereto shall, however, be deemed any waiver of said right of Seller to take possession on default or breach as aforesaid. Upon the Seller so taking possession of the Car, Seller may sell the Car at public or private sale at any time thereafter without any notice to the Purchaser, and if upon such sale the proceeds thereof are insufficient to pay the sums remaining unpaid with respect to said notes, and the expense caused by such repossession, removal, reparation, storage, liens and sale, any deficiency shall be paid by, and any overplus shall be paid to the Purchaser. Purchaser acknowledges receipt from Seller of a true copy of this agreement.

IN WITNESS WHEREOF, Seller and Purchaser, parties hereto, have hereunto subscribed their signatures and set their seals hereto in duplicate on the day and year first above written.

Witnesses:

.....[SEAL]
(Dealer)

By .....

.....[SEAL]
(Purchaser)

The extent of the gross profits that may be obtained therefore depends largely upon the volume of loans that can be made. Since the dealer is required to pay his loan to the automobile bank in monthly instalments, this bank is in fact in a position at the end of each month to make a new loan of several thousand dollars on the basis of the instalment receipts, borrowing as before 80 per cent of the amount from a commercial bank, on the collateral security of a new dealer's note and chattel mortgage. These monthly payments, it will be observed, will prove cumulative as additional loans are extended, each of which calls for monthly payments. In fact, by virtue of its ability to borrow from the commercial banks, a company is in a position rapidly to pyramid the volume of its business. It was formerly argued that loans might safely be made to eight or ten times the amount of the company's capital. But the present judgment of those in the business is that four or five times should be the limit for even the largest companies, while with the smaller concerns, the liability should not exceed two or three times the capital.

The profits of such companies have, in fact, often been very large, though the earnings fluctuate widely, varying with changing conditions in the automobile industry. It may be noted that the clerical force required to run such an institution is very small. There is usually only a manager, an assistant manager, a bookkeeper, and a stenographer, with one or more salesmen.

These companies have also, to some extent, financed auto trucks and tractors.—The hazards here have, however, been found considerably greater than in the case of passenger cars. This is particularly true of tractors, which are subject to a rapid depreciation because of the farmer's customary failure to house them properly against the inclement weather. Trucks are also subject to heavy depreciation; and it appears that the moral hazard has proved somewhat greater with trucks than with passenger cars.

The funds employed by automobile banks are procured in a variety of ways.—Thus far we have been placing emphasis upon

the methods by which the automobile bankers—both wholesale and retail—extend credit to the automobile industry, only incidental reference having been made to the sources of the funds used by these institutions. There are, in fact, several different methods by which the automobile bankers secure the funds which they lend. In all cases, of course, a part is derived from the capital contributions of the company's shareholders; but this capital is mainly employed to serve as the basis of the company's own credit. These institutions secure the funds which they lend in four different ways, some companies using but a single method, others at one time employing one means and again another, and some of them now and then using a combination of methods simultaneously.

First, they may borrow from the commercial banks, or through commercial paper houses, on their single-name promissory notes, without other security. There are only four or five companies which use this method. Second, they may borrow from commercial banks on their promissory notes, secured by the instalment notes of the purchasers of cars. The officers of the credit company also frequently indorse the notes. Third, they may raise the funds by selling the company's unsecured debenture bonds in the investment market. This method is apparently not very commonly employed. Finally, they may secure the money by selling in the investment market collateral trust notes or bonds.

The last method, only, requires explanation. The company assigns the notes received from its customers, together with the chattel mortgages or other documents, to a trust company where they are held in trust as collateral for the bonds to be issued. Guaranties from the various dealers who have given notes, to the effect that both principal and interest will be promptly paid, are also turned over to the trust company. The financing corporation then issues its own obligations, secured by these commercial notes, mortgages, and guaranties, and offers them for sale in the

general investment market. They are usually issued as short-term serial notes, some of which mature every few months.

The following statement of a commercial security company which purchases mortgages and leases on cars and pianos will serve to show the exact nature of the security possessed by the purchasers of the company's bonds.

First: Financial statement of dealer on form supplied.

Second: Execution of an agreement in duplicate on forms furnished, covering details and conditions of purchase of mortgages and leases.

Third: Naming of someone in vendor's employ to be authorized to make collection on mortgages and leases purchased, who shall be bonded by fidelity bond to make prompt remittance of collections, as provided in agreement.

Fourth: Listing of mortgages and leases offered for sale on blanks furnished, duly assigning and guaranteeing mortgages and leases listed.

Fifth: Mortgages and leases must show that they have been recorded, if required by state law, and recorder's certificate of filing must be attached.

Sixth: Mortgages and leases must show a minimum cash payment of 20 per cent of purchase price.

Seventh: Mortgages and leases must draw at least 6 per cent interest per annum.

Eighth: Final instalments on mortgages and leases must mature within thirty-one months of date of sale to the company.

Ninth: Under the terms and agreements to be entered into, mortgages and leases are to be purchased for 90 per cent of the balance due and owing thereon, payable 70 per cent at the time of purchase, and the balance in quarter-annual payments of 20 per cent of amounts collected and remitted on mortgages and leases, provided that no payments on same are in default, in which case same will be held until such defaults are settled.

Tenth: Mortgages and leases must be guaranteed both as to principal and interest by the dealer or manufacturer from which they are purchased.

The leases referred to relate to the loan of a car to the purchaser during the period when it is being paid for. On page 433 will be found a specimen form.

To be used in the States of New Jersey, Illinois, and Pennsylvania.

ORIGINAL

Lease Agreement

This Agreement, made this _____ day of _____, 19____

between _____
(Lessor's name and address here)

first party, his or its successors, agents or assigns hereinafter collectively called "Lessor") and

_____
(Lessee's name and address here)

second party (hereinafter called Lessee")

WITNESSETH:

THAT the Lessor has this day delivered in good condition and hereby leases upon the terms, rental, and for the time below specified, to the Lessee one _____ No. _____,
(Make of vehicle here)

Model _____ (hereinafter called the "Car") valued at _____

Dollars ($_____) for the use of which during this lease the Lessee has this day paid _____

_____ Dollars ($_____) as first instalment of rental and agrees to pay the Lessor or order a total of _____

Dollars ($_____) in further instalments of rental as follows:

$_____ on _____, 19____	$_____ on _____, 19____
$_____ on _____, 19____	$_____ on _____, 19____
$_____ on _____, 19____	$_____ on _____, 19____
$_____ on _____, 19____	$_____ on _____, 19____
$_____ on _____, 19____	$_____ on _____, 19____
$_____ on _____, 19____	$_____ on _____, 19____
$_____ on _____, 19____	$_____ on _____, 19____
$_____ on _____, 19____	$_____ on _____, 19____
$_____ on _____, 19____	$_____ on _____, 19____

and further agrees to pay and reimburse the Lessor with respect to any damage to the Car while the Car is in the Lessee's possession under this lease, except such depreciation as may be occasioned by ordinary wear and tear. Said instalments of rental shall bear interest at the rate of six per cent. per annum from date, and are to be evidenced by promissory notes made by the Lessee to the order of the Lessor bearing date hereof and maturing on the due dates of said respective instalments. The term of this lease is from date hereof until the due date of said final instalment, unless sooner determined subject to the provisions and terms hereof.

The Car is subject only to manufacturer's warranty, if copy of such warranty is annexed hereto, and if not so annexed, Lessee leases Car as it stands and no warranty, guaranty or representation as to the Car or any of its equipment is otherwise made or given by Lessor.

IT IS FURTHER AGREED that the Lessee shall not use for hire, underlet or encumber the Car or permit the same to pass from his possession; nor shall the Lessee assign this lease. Upon default by the Lessee with respect to any rental payments evidenced by said notes, principal or interest, then the holder of any notes then unmatured, may at his option declare all of said notes immediately due and payable, and the same shall thereupon become immediately due and payable. The Lessee shall keep and maintain the Car in good order and repair and free from all taxes, liens and charges, and surrender the same to the Lessor at the expiration of this lease. Upon any default in payment of any instalment of rental, or upon breach of any condition or covenant herein made by the Lessee, the Lessee shall on demand of the Lessor forthwith deliver the Car in as good condition as when received by the Lessee (ordinary wear and tear excepted) to Lessor, and should Lessee fail or refuse upon such demand to deliver the Car as aforesaid to Lessor, the Lessee agrees that the Lessor shall have the right without any further notice or demand, to terminate this lease forthwith and to take possession of the Car, wherever found, and for such purpose Lessee hereby licenses and authorizes Lessor to enter the premises of the Lessee with or without force or process of law, and take possession of the Car. Lessor may, at option, by collection, suit or otherwise, enforce payment of said notes, and no suits or legal proceedings with respect thereto shall, however, be deemed any waiver of said right of Lessor to take possession on default or breach as aforesaid. Lessee acknowledges receipt from Lessor of a true copy of this agreement.

IN WITNESS WHEREOF, Lessor and Lessee, parties hereto, have hereunto subscribed their signatures and set their seals hereto in duplicate on the day and year first above written.

Witnesses:

_____ _____ (SEAL)
Lessor sign here

By _____

_____ _____ (SEAL)
Lessee sign here

By _____

These credit companies render important economic services.—The nature of the service rendered by these financing corporations in connection with the automobile and similar industries was suggested in the introductory paragraph of this section, on page 418. The process of marketing automobiles, pianos, etc., is such that the regular financial institutions have neglected the financial requirements of these industries, particularly in periods of rapid expansion. Credit companies have therefore filled a breach in the financial structure and devised methods which at once minimize their own risks and insure the earning of large profits, while at the same time they make it possible for the commercial banking institutions and the investing public indirectly to furnish the funds required. Without them it is believed that the development of such industries would have been very seriously impeded.

The commercial credit companies and automobile banks should be subjected to government supervision.—Like the commercial paper houses, the discount companies are subject to no special legal regulation, being governed only by the general laws relating to ordinary corporate and business activity. While these institutions have already achieved a permanent place in the American financial system, many of them possess quite inadequate financial resources and thus are able to survive only during periods of rising prices and booming business. Not only are they not equipped to help absorb the shock of a period of depression, but many of them are almost certain to be eliminated. The lack of regulation, moreover, handicaps the larger and more efficiently managed companies which conduct their business on well tested principles.

In 1924, an effort was made by a group of bankers to place automobile financing upon a more satisfactory basis. As a result of a conference, in which were represented bankers, finance companies, and automobile manufacturers, there was organized the National Association of Finance Companies, and resolutions were adopted calculated to stabilize the business. It appears,

however, that the resolutions have not been strictly complied with, with the result that the general program has failed of accomplishing its purpose. The chairman of the board of several of the most important companies states that:

> For some two years there has been, and for the next several years there will continue to be, a gradual process of elimination which will ultimately benefit the strong and well managed companies. Many of the smaller companies have found or are finding that the profits are not as alluring as they had thought; that competition is extremely keen; that very large volume is necessary; and that eternal vigilance is the price of safety in the business. To my mind, the successful finance company of the future must do a tremendous volume of business through a large number of branches throughout the country or must be a small company operating within a very restricted territory. The company in between the two, I think, will find it more and more difficult to make a satisfactory showing.[12]

A few states, notably New York, have already passed laws for the regulation of finance companies, with a view to restraining reckless promotion and mismanagement. In all states such companies should be subjected to regulation and made to conform to definite provisions both as regards capital resources and the extent to which loans may be pyramided. The desirability of state regulation has, indeed, been recognized by some of the most prominent officials of such institutions.

QUESTIONS FOR DISCUSSION

I. THE WORK OF COMMERCIAL PAPER HOUSES

1. How does the work of the commercial paper house differ from that of pure brokerage? How does it differ from pure banking?
2. Why does the commercial paper house not wish to indorse the notes which it handles? How is title passed without indorsement?
3. Tell in your own words precisely how the commercial paper house makes its profit.
4. Do you think a commercial paper house would be equipped to make as good a credit investigation as a small-town bank? As a large metropolitan bank?

[12] A. E. Duncan, from an address entitled: "Finance Companies from the Viewpoint of the Company."

5. If you were a small-town banker desiring to purchase commercial paper of borrowers in other cities, would you be willing to trust the recommendation of a commercial credit house? If not, how might you secure the information which you desire?
6. State the services that are rendered by the commercial paper house: (*a*) to borrowers; (*b*) to bankers.
7. State in your own words the economic significance of commercial paper houses.

II. THE PURCHASE OF ACCOUNTS RECEIVABLE

8. Do you agree with the common contention that a concern that buys accounts receivable from businesses which are in financial straits is engaged in "illegitimate" financing?
9. If you were managing an enterprise that was in financial difficulties, would you resort to the sale of accounts receivable as a means of relief?
10. Why is it necessary for a concern which purchases accounts receivable from such a concern to charge very high rates?
11. State in your own words how the second type of institution that purchases accounts receivable differs from the first one mentioned in the text?
12. Using the data given in the text, figure what the gross service charge amounts to in terms of percentage on the funds borrowed.
13. If you were managing an enterprise that was in need of additional funds, would you be willing to pay a service charge as large as is indicated by the figures derived in question 12? Would you not prefer to issue more stock or sell more bonds?
14. Show concretely the relation of the commercial banks to the work of companies which purchase accounts receivable.
15. If you were a commercial banker and were unwilling to extend credit to a concern in the form of a direct loan, would you be willing to extend it funds indirectly, through the intermediation of a discount company?
16. What is your conclusion as to the economic justification of the practice of selling accounts receivable?

III. THE FINANCING OF AUTOMOBILE DISTRIBUTION

17. What is the essential difference between the financing of retail distribution and the financing of the wholesale end of the business?
18. Are there any respects in which you think the security back of the loans made by the automobile banks is inadequate?
19. Study the copies of the chattel mortgage, conditional sale agreement, and lease agreement, and state what rights are granted to the lender in each case?

20. How do the larger automobile-financing corporations make their profits?
21. How do the smaller discount houses which finance the retail end of the trade make their profits? Do you see any advantage in one method as compared with the other?
22. If you were managing one of these companies, would you attempt to secure the funds required by borrowing from commercial banks or by selling either debentures or collateral trust notes in the investment market? Why?
23. In case you elected to borrow from a commercial bank, what would determine whether you would borrow on an unsecured promissory note, or on the collateral consisting of customers' notes? In case you borrowed in the investment market, what would determine whether you would issue simple debenture bonds or collateral trust notes?
24. What is the purpose of the serial feature of the collateral trust notes?
25. In the case of the serial notes described on page 431, do you think the investment would be reasonably safe? How would you compare it with bonds of an industrial concern, where the funds are devoted to fixed-capital purposes?
26. State in your own words what you consider the economic justification of the automobile and piano bankers. Have you any criticisms to make with reference to their operations?

CHAPTER XXI

THE COMMERCIAL BANKING SYSTEM

The commercial bank was studied in chapter xviii as a special type of financial institution, and as such it was discussed in isolation, that is, independently of its relations to other banks. We shall find, however, that commercial banks are closely interrelated, each individual institution being in the ordinary course of its business brought into contact with other banks—with those in the same city or community, with those in other cities, and even with the institutions of other countries. Taken as a whole, the commercial banks constitute what may be called a "commercial banking system." In the present chapter we shall consider the nature of these interrelations and the reasons for their development, together with the origin and nature of the phenomenon of credit currency.

I. CLEARING-HOUSE ASSOCIATIONS

The banks of all the important financial centers of the country have worked out certain of their relations through clearing-house associations. A clearing-house association may be defined as an organization of banks designed to promote in every possible way the mutual interests of the members. The most common of these mutual services and the one that has excited by far the greatest popular interest is that of clearing checks. The practical operation of the clearing house in this capacity may be readily described.

Let us assume that in a given city there are twenty banks which are members of the clearing-house association. Each day bank No. 1 receives from its depositors a considerable number of checks which have been drawn against each of the other

nineteen banks; and, in turn, each of the other banks receives checks drawn on all the rest. Bank No. 1 credits to the deposit accounts of its customers the checks as it receives them; and it must then collect these checks from the banks against which they have been drawn. Before the hour set for exchanging the checks at the clearing house the clerks in bank No. 1 assemble them in bundles, so that all of those that are payable by each bank will be together. The total amount of the checks to be presented to each bank is also added up on a sheet of paper. At the hour of clearing, messengers from the several banks appear at the clearing house for the purpose of securing payment of the checks. The process by which these checks are "cleared" is as follows:

Within the clearing house is a large circular desk, with twenty compartments or stalls. In compartment 1 is a clerk representing bank No. 1; in compartment 2, a clerk representing bank No. 2, etc. The messenger from bank No. 1 deposits in compartment 2 the checks payable by bank No. 2; in compartment 3, the checks payable by bank No. 3; and, in turn, in each of the nineteen compartments. In his turn, the messenger from bank No. 2 deposits in compartment 1 the checks payable by bank No. 1; in compartment 3 those payable by bank No. 3, and so on around the circle. The messengers from banks Nos. 3, 4, etc., likewise deposit their bundles in the nineteen compartments representing the nineteen banks against which the checks have been drawn. At the conclusion of this presentation of the checks to the proper compartments, each clerk will find in his compartment nineteen bundles of checks, all of which are payable by his bank. These checks are turned over to the messengers, who immediately take them back to their respective banks. Thus the physical transfer of the checks has been accomplished.

Many checks are traded directly between banks.—It should be stated, parenthetically, that as a means of relieving the congestion of work in the banks in the larger financial centers a considerable percentage of the checks that are cleared are not

actually sent through the clearing house, although their totals are included in the sums which appear upon the clearing-house records. The reason for this is as follows: The clearing usually occurs at 10:30 A.M.; and after that hour the bank continues to receive checks from its customers, so that by the end of the day it has assembled a large number of checks payable by other banks. Again at the opening of the bank the following morning a large number of checks is soon received. Now, if bank No. 1, for instance, did not present any of the checks to the other banks until, say, eleven o'clock, the end of the clearing period, there would then be an enormous rush in assorting them and crediting them to the proper accounts. It facilitates matters very greatly if the checks accumulated after the clearing hour are sent to the banks upon which they are drawn in the afternoon of that day, and if, say, the first hour's collection in the morning is sent over in advance of the 10:30 A.M. clearing hour. Bank No. 1 therefore sends its accumulated checks drawn on banks Nos. 2, 3, etc., to these banks and trades them for a "batch" of checks drawn against itself, which the other banks have received from their depositors. Each bank can thereupon begin at once the work of debiting the checks to the proper accounts. By having the receipt of the checks spread over the entire day, it is much easier to take care of the enormous amount of routine clerical and accounting work that is necessarily thrust upon the larger institutions.

The greater part of interbank obligations are canceled.—It remains to note how the balances are struck and paid at the clearing house. We have already seen that bank No. 1 has a record of the total checks which it presents to the other banks. It also receives from each of the other banks, along with the checks, a statement of the total presented by each of the other banks against it. (This includes the totals of the checks that have been traded directly, as well as those actually brought to the clearing house.) Suppose, now, that the clerk in compartment 1 has on his statement $1,000,000, due from the other

banks; and that upon footing up the total of the nineteen statements deposited in his compartment he finds that his bank owes to the other banks $1,200,000. Bank No. 1 has therefore an unfavorable balance with the rest of the banks of $200,000.

Suppose the clerk of bank No. 2, in turn, finds that his balance shows $100,000 due from the other banks; the clerk of bank No. 3 finds that $50,000 is due from the other banks; the clerk from bank No. 4 finds that $40,000 is due to other banks, etc. After finding his balance each clerk presents to the clearing-house manager a slip showing the amount due to or from the other banks. And when the manager receives these slips from the twenty different banks, he writes the amounts down in two columns, one showing the sums due to the clearing house and the other showing the sums due from the clearing house. Since the checks presented to the clearing house by all the banks are the identical checks received through the clearing house from all the banks, these totals obviously must balance. The clearing-house manager thus has a ready means of "proving" the correctness of the figures presented to him.

There are numerous ways of paying the balances.—Various means have, in fact, been employed in the past in the settlement of these accounts, not all of which are of sufficient importance to require description. The most common method in the larger financial centers, prior to the adoption of the Federal Reserve System, was through the use of clearing-house certificates. Under this method each member of the clearing-house association deposited a portion of its cash resources with the clearing house and was given in exchange clearing-house certificates. These certificates were commonly of large denominations—one, five, and ten thousand dollars. It should be noted that, so far as the bank's balance sheet was concerned, these certificates appeared under the heading of "Cash," just as do gold certificates, which are claims against gold in the Treasury Department at Washington.

Now when bank No. 1 owed to the clearing house $200,000,

as in the foregoing illustration, it would turn over to the clearing-house manager $200,000 in clearing-house certificates. Since bank No. 2 had a balance of $100,000 due from the clearing house, the clearing-house manager would pay to bank No. 2 $100,000 of the clearing-house certificates which he had received. In a word, the clearing-house manager merely acted as intermediary in the transfer of these clearing-house certificates from the banks which had unfavorable balances to the banks which had favorable balances.

It will be seen that the use of these clearing-house certificates greatly lessens the risk of transferring funds. For if a messenger carrying them were robbed, no loss would be sustained by the banks, since the clearing-house certificates are acceptable only in the paying of balances between banks.

Clearing-house balances are now settled by book entries at the Federal Reserve bank.—Since the establishment of the Federal Reserve System, and the affiliation with that system of all the important state banks and trust companies in the larger financial centers, the process of settling clearing house balances has been still further simplified. In Chicago, for instance, each bank belonging to the clearing-house association has funds on deposit with the Federal Reserve Bank of Chicago. Accordingly, when the clearing has been completed, the manager of the clearing house notifies the Federal Reserve Bank that the deposit account of bank No. 1 should be decreased by $200,000; the account of bank No. 2 increased by $100,000; the account of bank No. 3 increased by $50,000; the account of bank No. 4 decreased by $40,000, etc. Thus by means of simple bookkeeping entries on the books of the Federal Reserve Bank, each bank in the clearing-house association has added to or subtracted from its funds the amounts necessary to settle its account.

The banks of the clearing house of Milwaukee are also all members of the Federal Reserve Bank of Chicago. And as soon as the clearings have been completed in Milwaukee, the manager of the Milwauke clearing house telegraphs to the Federal Re-

serve Bank of Chicago the amounts which should be debited and credited to the accounts of the different Milwaukee banks.

Not all the banks of a given city are members of the clearing-house association.—The reason for this is that it would complicate too greatly the process of clearing if a large number of institutions were involved. Most banks which are not members of the clearing-house association, however, clear through banks which are members. For instance, the X Trust and Savings Bank in a certain city clears through the First National Bank. Every day all the checks which are received by the X Trust and Savings Bank against other banks in the same city are sent to the First National Bank, which presents them, along with its own items, at the clearing house. Similarly, when other banks of the city receive checks drawn against the X Trust and Savings Bank they present them through the clearings to the First National Bank. If on a given day the First National Bank sent $10,000 worth of checks to the clearing house for the X Trust and Savings Bank, and received from the clearing house $8,000 worth of checks drawn against the X Trust and Savings Bank, the latter would have a favorable balance with the First National of $2,000, which would be credited to its deposit account in that bank. On the other hand, if the balance of the X Trust and Savings Bank should be unfavorable to a like extent, $2,000 would be subtracted from the credit which the X Bank has with the First National.

Suburban banks have an independent clearing.—In addition to these two types of banks—those that are members of the clearing house and those that clear through members—there may be a considerable number of small suburban institutions in the larger cities which still use the messenger service in the presentation and payment of checks. In 1919 there was established in Chicago, however, what is known as a suburban clearance, by means of which clearings are made at nine o'clock in the morning—before the regular clearing hours. The suburban

banks are thus enabled to effect their transfers by the same process that obtains in the regular clearings described above.

The clearing house is a very efficient business agency.—The function of the clearing house in this connection is, therefore, to perform certain tasks in a minimum of time and with a minimum of risks. It is a mere business device for the simplification of routine clerical work. The speed with which the work of a clearing house is transacted is very great, and the clerks are exceptionally accurate and remarkably rapid in their calculations. The actual time required to make the exchanges varies from about two to ten minutes; and only about a half-hour elapses from the opening of the clearing house until the entire morning's work is completed. The daily clearance in New York averages in excess of three hundred million dollars.

The clearing house makes a great appeal to the imagination of many people, because of the enormous volume of exchanges that are so quickly effected. In large measure, however, this appeal is merely fanciful. If one has visions of enormous volumes of cold cash—countless millions of dollars—changing hands with lightning-like celerity, he will be disappointed in visiting a clearing house; for instead of the glitter of gold, or even of the green of bills, he will see merely a number of clerks filing in and out with inconspicuous packages of checks, other clerks busily engaged in adding columns of figures, and then he will shortly hear the clearing-house manager announce the total of clearings that has been effected. It is, on the whole, a rather drab performance—much less exciting than many other phenomena of business organization that distinguish our capitalistic industrial system.

Clearing-house associations have eliminated certain competitive banking practices.—While the greatest interest in the clearing-house association has always centered in the clearing of checks, some of its most important functions are of another nature. I refer to the use of the clearing-house association as a means of controlling certain competitive banking activities, in

the interests not alone of larger bank profits, but also of the stability and soundness of the commercial banking system as a whole.

The origin of the New York clearing house, indeed, appears to have been attributable as much to a desire to escape from certain competitive evils as to reduce the time required for exchanging checks. Before the establishment of the clearing house in 1853 the difficulties involved in settling balances between banks in the metropolis were so great that no attempt was made to effect a daily settlement of accounts. While checks were presented each day, the banks by informal agreement settled their balances only once a week—every Friday morning following the exchange of checks. The cashier of each bank then drew a check against each of the banks from which credit balances were due and sent a messenger to collect them.

This weekly settlement made it possible for any bank which so desired to take advantage of the others. For instance, on Monday, bank A might make a large number of loans against which the borrowers would draw checks. These checks, in the main, would be presented at other banks; and since these banks had to wait until Friday before they could collect from bank A, it was possible for bank A greatly to expand the volume of its loans at the expense of the other institutions. A settlement would of course have to be made on Friday; and in order to have the necessary funds with which to meet its adverse balances, bank A would borrow on Thursday the money with which to make its Friday settlements. When these loans were paid on Saturday, the bank would again be in debt to all the others, and by repeating the practice of making large loans it would again secure the use of the other banks' funds.

As a means of preventing certain speculative institutions from indulging unrestrainedly in this practice, it became necessary to agree that any bank could draw against its credit balance with another at any time without waiting for the settlement on Friday. And when any bank was in need of specie, this privilege

was commonly utilized. An old bank officer of New York who had experience with these practices has stated that so far did many banks expand their loans that "a single small draft by one bank on another would induce a general drawing involving them all in confusion and virtual war on each other. Three o'clock would arrive with a line of drafts incompleted, thus frequently enabling the debtor banks to add $50,000 to their specie holdings."[1] The losses sustained by the unfortunate banks, together with the perpetual annoyance and the bitterness of feeling that was often engendered by these sharp competitive practices, must have been quite as responsible for the organization of a clearing-house association as the prevalent costly and cumbersome method of settling balances.

Once established, the clearing-house associations became the agencies for the elimination of competitive evils and the strengthening of commercial banking practice in numerous connections. James G. Cannon, the authority on clearing-house practices, says: "The tendency has been marked, especially in recent years, to include within the legitimate field of clearing houses all questions affecting the mutual welfare of the banks and the community as a whole." The most important of the special functions designed to raise the plane of banking operations are as follows: (1) fixing uniform rates of interest on deposits; (2) fixing uniform rates of exchange and charges on collections; (3) conducting clearing-house bank examination; (4) effecting mutual co-operation among banks in time of acute financial strain.

1. *Fixing uniform rates of interest on deposits.*—Like the savings banks, commercial banks have sought to expand the volume of their resources available for lending purposes by attracting deposits through the offer of interest on commercial accounts. The necessity of paying deposits on demand was of course recognized; but where an average balance above a certain minimum was kept by any individual, it was recognized

[1] See James G. Cannon, *Clearing Houses*, p. 150.

that interest could be paid on such portion of the funds as was left more or less continuously with the bank. As a means of attracting as large a volume of deposits as possible, some banks offered rates of interest that were higher than normal, thereby endangering their solvency.

It is of course possible that a bank might succeed in paying higher interest rates on deposits than the going rate, if by this means it secured a substantial increase in its volume of business. But where competition is keen the raising of interest rates by one bank usually forces the others to follow suit; and when all banks pay higher interest rates on deposits, they merely lessen the margin of banking profits that can be obtained and imperil in no small degree their own financial security.

It gradually became apparent that in the interest of sound banking the raising of rates on deposits as a means of attracting business was detrimental to the banks as a whole and thus to business in general. The clearing-house associations provided a means whereby, through concerted action, the associated banks could agree to regulate such competitive practices. Rates of interest were agreed upon as early as 1881 in Buffalo; and other associations have gradually fallen into line. While the agreements differ somewhat in different cities, 2 per cent per annum has in recent years been the usual rate on deposit balances above a certain minimum, commonly $1,000. This applies both to bankers' balances and to the deposits of individuals.[2]

The legality of agreements of this sort has of course been questioned and some associations still regard it as a moot practice, and are hence reluctant to establish and enforce any particular rate. Even in these cases, however, there seems to be more or less tacit assent to uniform rates.

The fixing of interest rates on loans has also been considered by many clearing-house associations.—But in most instances the suggestion has not met with favor, for two reasons:

[2] During the world-war the rate was raised to 2½ per cent, at least in some centers.

first, the individual banks look upon the lending of money as their most distinctive prerogative and would regard agreements upon the rates at which money should be loaned as a virtual elimination of all individual initiative in bank management; second, such agreements—whatever the rates determined upon—would doubtless smack of monopoly control and invite restrictive legislation.

It is an interesting observation that there is much more likely to be agreement on interest rates in country towns and villages than in large financial centers. There appear to be many cases where there are informal agreements between banks in small towns that money shall not be loaned for less than 6, 8, or 10 per cent, as the case may be. In the larger cities, however, there is undoubted independence in this matter, although in the nature of things there is seldom any wide disparity in rates, owing to the very close competition that obtains and to the equalizing effect of the operations of the commercial paper houses.

2. *Fixing uniform rates of exchange and collection charges.*—Everyone dislikes to pay exchange and collection charges; and one of the best devices for attracting additional business, therefore, has been the elimination, or the reduction, of such charges. Now any particular bank might well more than make good the losses sustained by furnishing drafts to customers and collecting items free of charge, out of the enlarged volume of business obtained as a result of such a policy. But when all the banks of a given community, under the impetus of competition, engage in rate cutting, it is obvious that the collection costs to the banks as a whole cannot be counter-balanced by an increased volume of business for the banks as a whole. We have here a case of cut-throat competition similar to that which for so long a period led to the financial embarrassment of railroads and industrial concerns. The clearing-house associations again provided the mechanism for agreements on uniform exchange and collection charges; and again it was in Buffalo, in 1881,

that the first agreement was made. A scale of charges was adopted and put into successful operation, the rates not being high, but arranged as nearly as possible to cover the costs incurred by the banks in performing the service in question.

While many difficulties have been encountered in some places in controlling this phase of banking competition, the practice of agreeing upon uniform charges has been gradually extended throughout the country. The adoption of the Federal Reserve Act, however, and the development of a new collection system, now accomplish the same results by other means.[3]

3. *Conducting clearing-house bank examinations.*—Clearing-house bank examinations are of still more recent development, the first one having been organized in Chicago on June 1, 1906. The examination of banks by an agent of the clearing-house association constitutes an attempt by the banks themselves to control and safeguard the interests of the credit structure as a whole through a system of supervision which greatly reduces the chances of bad banking practice and consequent banking failures. A statement of the origin of the system of clearing-house bank examinations in Chicago will best serve to reveal the reasons for this significant development.

In the autumn of 1905 it was discovered by the federal bank examiner that a large national bank in Chicago, of which a prominent financier was president, was insolvent. The president of this bank was also in control of two state banking institutions and it was conceded that the three institutions were involved in mutual difficulties. The status of affairs was discovered on a Saturday morning; but owing to the fact that the money market was in a somewhat strained condition at the time, it was deemed inexpedient to make an immediate public announcement, lest a "run" on these banks might so shatter general confidence that a financial panic of serious proportions might be precipitated. Accordingly, the announcement was postponed until Monday; and during the interval a committee of leading bankers and

[3] See pp. 585–89.

business men met with the federal examiner to consider ways and means of meeting the situation. Fearing a general loss of confidence in Chicago banks, these men actually advanced several millions of dollars in order to prevent a "run" upon the insolvent institutions. The president of the banks paid the personal penalty of imprisonment, but the millions of dollars advanced to prevent a general disruption of credit to this day remain largely unpaid.

It was from no altruistic motive that the financiers of Chicago thus underwrote the losses of an erring member; it was rather enlightened self-interest which dictated their policy. In the light of this experience, however, it was decided that some means should be developed, if possible, to prevent a recurrence of such a disaster. Many bankers and business men had for some time been aware of the fact that the banks in question were in an unsound condition, the funds of these institutions having been used for railroad and other enterprises in which the president was interested. It was known that these enterprises were in financial difficulties and that the good funds of depositors were being steadily diverted from the financing of ordinary conservative business to the rescuing of the bad funds already invested elsewhere. Upon the occasion of his previous examination, six months earlier, the federal bank examiner had not fully perceived the gravity of the situation—doubtless because there was juggling of accounts between the state and national institutions. It was believed, therefore, that the only remedy for the situation was to develop a means whereby other banks could bring pressure to bear to correct an obviously dangerous situation, before it could get so bad as to imperil public confidence in banking institutions generally. Accordingly, the clearing-house association devised the system of examinations as a means of eliminating bad banking practices on the part of any of its members.

The system devised for Chicago is in brief as follows: A skilled examiner is employed by the clearing-house association for the purpose of making annual examinations of all the asso-

ciated banks and of the non-member institutions of Chicago, and such additional examinations as may appear to be necessary at any time. The examination includes a verification of the assets and liabilities of each bank and an investigation of the work of each department. Upon the conclusion of an examination, the examiner prepares a detailed report, in duplicate, which discloses the bank's loans, bond investments, and other assets, mentioning particularly all loans, either direct or indirect, that have been made to officers, directors, or employees, or to corporations in which they may be interested. One of these reports is filed in the clearing house in the custody of the examiner and the other is handed to the president of the examined bank for the use of its directors, thus bringing the condition of the bank sharply to the attention of the responsible managers of the institution. A briefer and less specific report, disclosing no essentially private information, is also sent to the clearing-house committee. The clearing-house examiner also co-operates with federal and state bank examiners and thereby increases the efficiency of their work.

The system thus inaugurated in Chicago has been copied in a large number of the leading cities of the country. It has been uniformly successful, and thus far no bank which is subject to the clearing-house examination has ever failed. In the light of this record it is not surprising that the clearing-house bank examination has been called the most constructive banking improvement that has ever been developed as a result of private enterprise.[4]

II. RELATIONS BETWEEN BANKS IN DIFFERENT CITIES

In the evolution of the commercial banking system it has been found necessary for banks in different cities to develop what are known as "correspondent" relations. The principal

[4] The devices that have been developed for effecting mutual co-operation of clearing-house banks in times of financial crisis are discussed elsewhere. See pp. 511-15.

services rendered to one another by correspondent banks may be listed as follows: (1) acting as collecting agencies; (2) giving one another advice and information pertaining to financial and business affairs in their respective localities; (3) holding deposits of excess funds; (4) borrowing from one another, as occasion requires.

1. *Acting as collecting agencies.*—Every important bank receives from its customers in the daily course of business many checks drawn on banks in other towns and cities. Such checks are customarily at once credited to the account of the depositor who presents them; and it is accordingly necessary for the bank to send them for collection to the banks upon which they are drawn. Before the establishment of the Federal Reserve collection system, checks and drafts upon banks in other cities were sent by mail either to the bank direct or to some other bank which would act as an agent in the process. Since the old system of collecting checks is now practically obsolete, it is unnecessary at this place to describe the process in any detail.[5] It need only be said that each bank endeavored to collect its checks in the easiest and cheapest way possible. Sometimes this involved sending the check direct to the bank upon which it was drawn; sometimes it meant sending it to a correspondent bank located in the same city as the drawee bank; and sometimes it meant sending it to a correspondent bank in another city, whence it would be "relayed" to the city where the drawee bank was located, being sent either direct to the bank in question or to a correspondent bank, whichever way was more convenient and less costly. Having gradually developed without any concerted effort at systematization, the system was on the whole very cumbersome and time-consuming, and withal socially inefficient and expensive. Various improvements were being made, however, in the years immediately preceding the establishment of the Federal Reserve System.

[5] For a description of the Federal Reserve collection system now in vogue, see pp. 585-89.

Besides collecting checks and bank drafts for one another, correspondent banks also render a great deal of mutual service in collecting business notes and bills of exchange. For instance, a customer of a bank in Grand Rapids, Michigan, may have a promissory note due from an individual in Chicago. The process of collection is greatly facilitated if he turns this note over to his bank for collection. The bank sends the note to its correspondent in Chicago, which then either details a messenger to collect the note at maturity or notifies the maker that it is due and payable at the bank on a stipulated date, the procedure depending upon the terms of the agreement in each individual case.

Another form of collection involving the use of correspondent banks is found in connection with the payment of principal and interest on bonds and mortgages. For instance, an individual in Bloomington, Indiana, may own bonds the interest and principal of which are payable at the First National Bank of New York. As the coupons, and ultimately the principal, fall due, they are presented to the local bank in Bloomington, which sends them to its correspondent in New York, where they are presented to the First National Bank for collection.

It should also be recalled at this place that it is through the correspondent relations of banks that the system of domestic exchanges, whereby cash moves *only* in the settlement of trade and other balances between different centers, is worked out.[6] In order to be in a position to sell bills of exchange to their customers, local banks are obliged to keep funds on deposit in the financial centers with which the business of their constituents is mainly connected.

2. *Exchanging advice and information on financial and business affairs.*—Correspondent banks render a great deal of indirect service to one another. The banks in the larger cities, through the publishing of monthly analyses of business conditions, digests of important legislation, and special reports on various subjects from time to time, which are sent free to all

[6] See pp. 150–51.

correspondents, keep the country bankers—those who read—posted on fundamental economic conditions in a fairly effective way. The city banker also advises the country banker with reference to the standing of firms whose commercial paper is being offered for sale, and with reference to bond and other investment opportunities. The country banker, on his part, supplies the city correspondent with information on business conditions in his locality and on the character and standing of business men in his community with whom the city banker may have dealings, either directly or indirectly.

The co-operation in the handling of financial affairs and in the dissemination of information on economic questions accomplished through these correspondent relations is a most important development from the standpoint of sound business and economics.

3. *Holding deposits of excess funds.*—In order to secure a certain amount of financial concentration, or centralization, our national banking laws formerly permitted the banks of the smaller cities to deposit a portion of their reserves[7] in the banks of the larger cities. The practice has been general for the city banks to pay 2 per cent interest on these reserve deposits, the banks being able to do this by virtue of the possibilities of a remunerative employment of the funds thus received in stock exchange and other financial operations. Besides lending a portion of their legal reserves, the outlying banks also lend additional funds to their city correspondents during periods of slack business in the country. Funds that would otherwise be idle are thereby given employment, at a low rate of interest, the while remaining subject to call for more remunerative investment as soon as occasion offers.[8]

The concentration of funds in financial centers—both large

[7] For details see p. 463.

[8] We shall later see that this practice has serious weaknesses in times of financial stress (p. 504).

and small—is a striking phenomenon of our modern financial system. Professor Taylor tells us, for example:

> Some years ago in a certain Michigan village which had a factory with a pay-roll of $2,000 per week, it proved necessary for the local bank to bring out the $2,000 in cash from Detroit practically every week in the year—that is, the $2,000 having been paid to the workmen, instead of remaining in the village ready for use the next week, before the time was up found its way into Detroit, whence it had to be taken back by the banker.[9]

New York is the great financial center of the United States.—A large percentage of the deposits of New York banks, in some cases more than half, are bankers' deposits—funds sent in by correspondent banks from all over the country. An investigation made in 1901 showed that on September 1 of that year the New York banks had more than 43 per cent of the net bankers' deposits of the United States—three times the volume of those held by the banks of Chicago and St. Louis combined.

The dominance of New York in this connection is due primarily to its position as the great entrepôt of trade. The overwhelming percentage of our foreign trade, both exports and imports, passes through or is financed through New York, as a result of which practically all banks find it necessary to keep funds on deposit there. In 1890 information was secured by the Controller of the Currency from 3,329 out of 3,438 national banks, bearing on their financial relations with New York. Of the reporting banks all but three stated that they drew drafts upon New York; and the returns as a whole showed that the total amount of drafts on New York was 61.31 per cent of all the drafts on all the banks in the country. This may be compared with 9.82 per cent of the total that was drawn against Chicago banks. New York is thus, in a sense, the clearing house for the entire country.

4. *Borrowing from one another.*—The borrowing relations of correspondent banks have been developed as a means of securing additional cash as occasion demands. It has often been

[9] F. M. Taylor, *Some Chapters on Money* (copyright, 1906), pp. 139–40.

assumed that a commercial bank commonly relies upon its maturing loans to provide it with ready funds when needed. In practice, however, we find that to a large and steadily increasing extent—before the adoption of the Federal Reserve System—the banks of the country borrowed from one another by one device or another the funds required for the replenishment of depleted reserves.

This borrowing has been accomplished by numerous devices. The first, but not the most important, of these was by the rediscount of customers' notes. If a bank in Richmond, Virginia, needed additional cash resources, it could sell the note of one of its customers to its correspondent bank in New York, thus providing itself with the needed funds. This practice, however, was characteristically opposed by the customers themselves. It appears to have been assumed that banks should have enough funds of their own with which to conduct their operations and that the selling of notes in Wall Street was a sign either of weakness or of dangerous speculative activity.

As a means of avoiding this unwarranted criticism of the practice of rediscounting, the banks resorted to various expedients. One of these was to indorse the notes that were rediscounted with a lead pencil so that the indorsement could be erased when the note was returned to the maker for payment. Another and much more common device was for the bank officials to borrow on their own promissory notes, either with or without customers' notes as collateral security. The funds thus borrowed were then deposited in the bank, with the understanding that the officers would not withdraw them.

Another method of securing funds from correspondents in time of emergency was by the sale of bonds, with an agreement to repurchase them at the same price, plus a fixed rate of interest. This was a very common practice. An operation akin to the sale of bonds was the lending of bonds by one bank to another for use as security for note issues, special deposits, etc. The sale of commercial paper purchased in the open market was

a final method by which a bank could increase its reserves, as occasion required. This practice developed rapidly after the turn of the century, and particularly after the panic of 1907. The development of the Federal Reserve System, however, has, as we shall see, largely rendered obsolete all of these methods of securing additional funds with which to meet emergency demands.

III. LOANS, DEPOSITS, AND RESERVES

We have already seen that in commercial banking the granting of a loan commonly gives rise to a deposit account, and that a commercial bank requires a cash reserve against deposits of only moderate proportions. We may now consider in greater detail the interrelations of loans, deposits, and reserves in the commercial banking system as a whole.

If there were only one bank in a given community and if every customer of this bank ordinarily used a checking account as a means of payment, a bank which possessed at the beginning of its lending operations a cash reserve of $100,000 could gradually extend its loans and create deposit accounts to many times the amount of its reserve. Suppose we start with the assumption that $100,000 of loans are made, thus creating deposit accounts to the extent of $100,000 (omitting, for convenience, the amount of the discount). If, as indicated in the preceding chapter, the borrowers of this $100,000 write checks for $100,000 payable to other individuals in the same community and these individuals bring the checks to this bank for deposit in their accounts, it is obvious that a total of $100,000 deposits resulting from the loans is still maintained; and if, in turn, these new depositors write checks to the amount of $100,000 in payment of obligations and the persons who receive them in their turn bring them to this bank for deposit to their respective accounts, the total of $100,000 in deposits still remains; although the names appearing on the bank's ledger as creditors of the bank are constantly shifting.

Suppose we now assume that $200,000 of additional loans

are made, creating thereby $200,000 of new deposit accounts, against which checks are repeatedly drawn and deposited by those who receive them, as in the case of the original $100,000. This bank would now have on the assets side $100,000 in cash, and on the liabilities side total deposit accounts (that is, claims against cash) to the extent of $300,000. The question may now be raised, Is it safe for a bank to create deposit accounts of $300,000, when it has only $100,000 of cash? The answer is that it is entirely safe if, as in the case we have been assuming, everyone deposits the checks received with the bank and pays his obligations by writing checks against his account rather than by withdrawing specie for the purpose.

In practice, however, not everyone does refrain from drawing cash. A bank may safely count on having to redeem a certain percentage of its claims in actual specie. But since this percentage is ordinary small, it is unnecessary for the bank to carry a dollar in cash for every dollar of claims. In practice, indeed, it has been found that, typically speaking, the banks have to keep only about one dollar in cash for every ten dollars of outstanding deposits.

We shall presently see that by virtue of a redepositing of reserves the ratio of cash to deposits in the banking system, as a whole, is even smaller than this.[10]

Suppose we assume now that there are two banks in a given community; and that when bank No. 1 makes a loan of $100,000 to Mr. A, the latter writes a check in favor of X, who deposits it, not in the same bank, but in bank No. 2. In this case the loan made by bank No. 1 gives rise to a deposit account in the name of Mr. X in bank No. 2. Immediately speaking, the changes to be made on the balance sheet of bank No. 2 are as follows: on the liabilities side, "Deposits"+$100,000; on the assets side, "Exchanges for the clearing house"+$100,000. But when bank No. 2 presents this check for payment to bank No. 1, Will it not involve the following changes on the books of bank

[10] See chap. xxii.

No. 1: "Deposits"—$100,000 (deducted from A's account); and "Cash"—$100,000, the latter being turned over to bank No. 2? The answer is that a payment is usually effected without the movement of any very great amount of specie. The reason for this is that bank No. 2 is also engaged in making loans and creating deposit accounts; and we may assume that Mr. B who received a deposit account in bank No. 2, say, of $120,000, writes a check in favor of Y, who deposits it in bank No. 1. As a result, bank No. 1 has due from bank No. 2, $120,000. Under these circumstances the account can be settled merely by shifting $20,000 of specie from bank No. 2 to bank No. 1.

When we complicate the system still further by assuming that there are a large number of banks in a given community and that each is daily making loans and creating deposit accounts against which checks are drawn and deposited (in the main) in this or other banks, we approach the actual situation that exists in large financial centers. And, as we have seen in our study of clearing-house associations, in settling the counterclaims of the associated banks only so much cash moves as is necessary to pay the net balances between each bank and all the other members.

We may now complicate the situation one step farther and assume that some of the checks drawn against deposit accounts in the city in question are sent to individuals in other communities. The checks that are drawn against community A and deposited in banks in community B are entered on the liabilities side of the bank balance sheets as "Deposits" of customers and on the assets side as "Due from banks." Now will not community A draw funds away from community B, when it presents these checks for payment? The answer again is no—that cash will move only to effect a settlement of net balances which cannot be offset in any way. Just as balances between banks which are members of a clearing-house association are settled without the movement of specie, so also, by virtue of the correspondent relations that obtain between banks in different centers, together

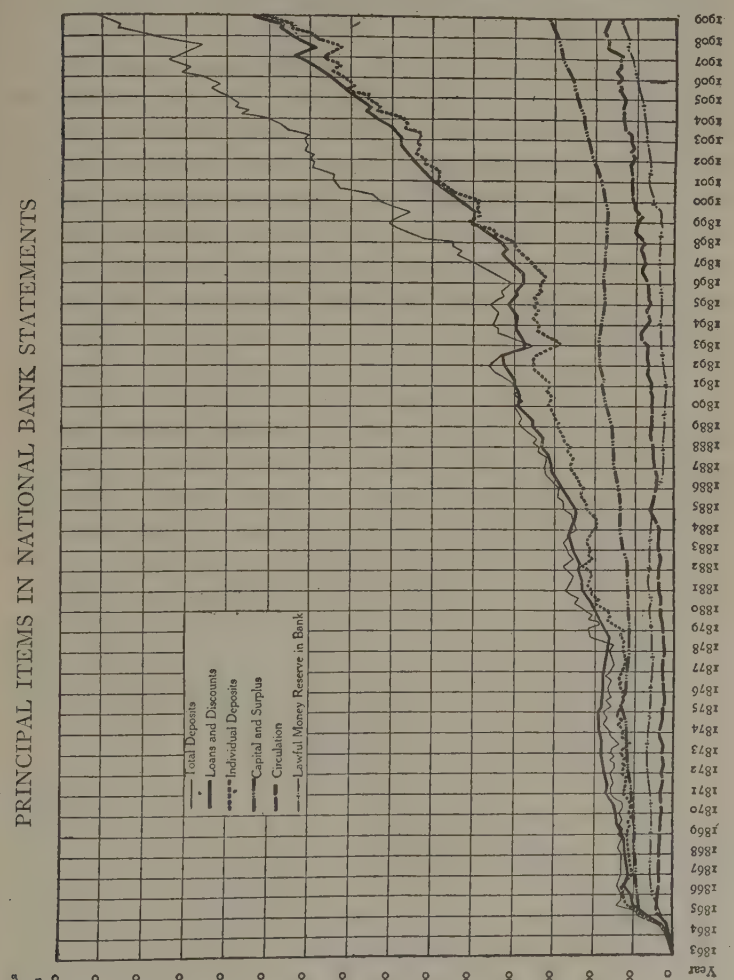
with the mechanism of domestic exchanges, cash moves in the settlement of balances between banks in different centers only as a last resort. The commercial banking system, indeed, is international in its scope; for, as we have seen in chapter ix, the foreign exchanges operate so as to minimize the flow of specie between nations.

The assumptions that we have been making in the preceding paragraphs are directly applicable to the facts of the modern financial system. The use of checks in making payments, while of gradual development, is now almost universal in the larger cities for all except the smallest transactions. Hence the ratio of cash to deposits—the reserve that must be kept—has been a steadily declining one. Under a system where the use of checks as a means of making payments is practically universal, where individual depositors seldom present checks for payment in cash, and where banks—whether in the same or in different cities—largely cancel payments between one another, it has been possible for the commercial banking system ordinarily to maintain convertibility of deposits into cash with a very small ratio of reserve money to outstanding deposit liabilities. The chart on the following page reveals the slender, and declining, margin of cash reserves in the national banking system, and it also shows a striking correlation between loans and individual deposits in the system as a whole.

It should be emphasized in connection with this analysis of deposit currency, that the creation of bank credit has not been accomplished overnight by a single, individual bank. It has been only gradually developed through the operation of the commercial banking system as a whole. A newly established bank cannot forthwith make loans to several times the amount of its cash resources, nor could a bank receiving a deposit of gold promptly multiply its loans. The demands for cash to meet checks, presented mainly through the clearing house, would quickly exhaust the reserve and compel a contraction of loans, or force insolvency. It is nevertheless true that in the course of

its evolution the commercial banking system has greatly expanded the volume of loanable funds.

Commercial banks require very small till money reserves.—One further consideration of banking practice will serve to



throw additional light on the problem of commercial banking reserves. As we have already seen, every commercial bank, in addition to creating deposits by the process of making loans, receives deposits from individual customers from day to day. Some of these latter deposits are in the form of actual specie which is available as reserve. And from day to day, also, a large bank with many customers will find that it has some cash resources flowing in from the payment of loans. There is thus a continuous, though variable, flow of cash into the bank. At the same time, as we have seen, there is also a perpetual, though fluctuating, flow of cash out of the bank to meet adverse balances, pay depositors, etc. If this inflow of funds exactly coincided with the outflow, it would be unnecessary for the bank to hold any specie on hand for till money purposes. They do not exactly coincide, however, and hence a small reserve of cash is required.

The amount of funds for till money purposes which a commercial bank must keep on hand is still further reduced by virtue of the fact that in ordinary times a bank has various means of securing additions to its cash in case of need. All of these means have already been discussed and accordingly they may here be merely summarized, as follows: (1) by borrowing, in various ways; (2) by selling commercial paper purchased through commercial paper houses; (3) by selling securities; (4) by calling loans. By virtue of these means of securing a quick command of funds, a well-organized bank usually requires cash for till money purposes only to the extent of 3 or 4 per cent of the total outstanding (deposit) claims.

Banks are required by law to keep ultimate or liquidation reserves.—Banks are required, however, to keep substantially larger reserves than are dictated by till money needs. In the interest of protecting bank depositors from loss, the law requires the keeping of what may be termed an "ultimate" or liquidation reserve.[11] By virtue of this requirement the depositors are cer-

[11] See pp. 534–35.

tain to receive a considerable cash payment in case the bank becomes insolvent.

Before the passage of the Federal Reserve Act in 1913, the banks of the central reserve cities were required to keep a 25 per cent reserve, all in their own vaults; those of the reserve cities, 25 per cent, of which one-half might be on deposit in the central reserve cities; and the country banks, 15 per cent, of which three-fifths might be on deposit in either the reserve or central reserve cities. Since these reserves were minima, below which the banks were not permitted to cut, they were, in fact, the ultimate or liquidating reserves of the banks. Thus a depositor in a country bank was certain to get at least 15 cents on the dollar in case the bank should fail. But since these were ultimate reserves, it is obvious that the funds required for till money purposes had to be in excess of this amount. The statistics of bank reserves show that the till money reserves were in fact usually very small indeed.

Actual net reserves in the banking system as a whole are much less than the nominal reserve requirements.—By virtue of the duplication of reserves which was permitted under the national banking law, the actual reserves were considerably smaller than the above-mentioned percentages for the different classes of banks would indicate. A "country bank" in Bloomington, Indiana, for example, had a 15 per cent reserve: $6,000 in its own vaults, and $9,000 on deposit with a correspondent bank in Indianapolis, a reserve city. On the basis of this $15,000 of reserve, the Bloomington bank would have outstanding $100,000 worth of deposits. Of the $9,000 which was placed with the Indianapolis bank, $4,500 would be sent by this bank to a correspondent in New York and would still be counted as reserve. Thus on the $9,000 of cash reserve received from the Bloomington bank the Indianapolis bank would expand loans and create deposits to the extent of $36,000; and at the same time the $4,500 which was sent to New York would there serve as a reserve for four times that amount, or $18,000, of deposits. Thus

a total of $154,000 of deposits would be outstanding against $15,000 of actual specie. The same cash thus served simultaneously as reserve in three different places.

The table on page 498 shows the ratio of cash to deposits in the national banks as a whole. It will be seen that the net reserve of the system, while varying somewhat from year to year, has typically been below the minimum reserve requirements prescribed for individual banks. This phenomenon, of course, reflects the duplication that is permitted.

There is, finally, a still further lessening of the ratio of cash to deposits in the banking system as a whole by virtue of the fact that there has been a still further duplication of reserves through the connections of small state banks with larger state banks and of both with the national institutions of the larger cities. In recent years—prior to the Federal Reserve Act—the ratio of cash to outstanding oligations in all our commercial banking institutions, state and national, has, in fact, been considerably less than 10 per cent.

Under the Federal Reserve Act the reserve requirements for national banks have been substantially reduced,[12] and it is now possible for the banking system as a whole to conduct its operations on a basis of only 4 or 5 per cent reserve.[13]

IV. COMMERCIAL BANKING AND THE SUPPLY OF LIQUID CAPITAL OR CURRENCY

Having seen that our commercial banking system, with its slender basis of cash reserves, is ordinarily safe by virtue of the fact that actual specie is seldom called for, we may now indicate briefly some of the larger results of this banking organization. The commercial banking system, as a whole, gathers together a considerable proportion of the monetary resources of

[12] See pp. 567–68.

[13] For a good discussion of this subject, see H. L. Reed, "Credit Expansion under the Federal Reserve System," *American Economic Review*, VIII (1918), 270–82.

the nation and organizes them in such a way as to expand many fold the volume of loanable funds. From another point of view this merely means that the commercial banking system has served to give us a vastly increased quantity of currency; it has furnished much the largest portion of present-day circulating media. What, now, is the significance of this addition to our monetary supply?

We have already seen that from the standpoint of ordinary exchange operations the checking system is usually much more convenient than either metallic or paper money. And from the standpoint of economic cost, checks and bank notes provide very inexpensive substitutes for metallic currency. But by all odds the most significant aspect of deposit currency is the net addition that it constitutes to our total monetary supply. Concretely, in the absence of the commercial banking mechanism, the total currency supply of the United States on June 1, 1925, would have been $5,548,530,025. Including bank notes and deposit currency, it was about $28,000,000,000. In view of the extraordinarily large gold imports of recent years, moreover, this total of bank-note and deposit currency is capable of much greater expansion.

One of the most vital and controversial questions in economic literature is the affect of this increase in our monetary supply upon the efficiency of wealth production and upon the level of prices. Has the evolution of this commercial banking currency been attended merely by a rise in the level of prices, with no increase in production, or has the multiplication of the volume of loanable currency that has been affected tended to stimulate production and to increase the wealth of nations?

Two schools of thought have developed, the one contending that the quantity of money is a matter of entire indifference and that the net result of the creation of deposit currency is merely to change the price-level; the other holding that under certain circumstances an increase in the supply of deposit currency facilitates productive operations, particularly in connection with

the creation of new supplies of capital goods. In this elementary treatise, we cannot well go farther than to suggest the problem of the relation of deposit currency to prices; its fuller exposition lies in the field of advanced study. It may be pointed out, however, that those who argue that an increase in the supply of bank currency serves only to raise prices usually conceive of money only as a medium for exchanging goods that have already been produced; they regard deposit currency as of use only in facilitating the flow of goods from producer to consumer.

Whatever may be the ultimate price consequences of our evolving commercial banking mechanism, they can be intelligently apprehended only when one approaches the study with a clear appreciation of the undoubted fact that the commercial banking system is fundamentally related to the productive no less than to the exchange process, to the raising of fixed no less than to the raising of working capital, and to the functioning of other financial institutions no less than to the functioning of business organizations generally.

V. COMMERCIAL BANKING AND THE GENERAL ECONOMIC ORGANIZATION

The charts on pages 163 and 165, together with the discussion of the various purposes for which commercial banks extend credit, outlined in chapter xviii, indicate the dominant position that the commercial banking system occupies in the entire financial structure. Our financial fabric as a whole is, moreover, so constructed and operated as to concentrate a very large, and a steadily increasing, percentage of our "lawful money" in the vaults of commercial banks rather than in those of other financial agencies. The bond houses, handling billions of dollars' worth of investments annually, require relatively little actual money. Their business is largely that of intermediary, and their transactions are nearly always effected on the part of both their customers and themselves by checks on commercial banks. Similarly, the insurance companies require specie or legal tender in

almost negligible quantities. Such "funds on hand" as they are required to hold may be kept in the form of a checking account with a commercial bank. The savings banks likewise hold at best very small cash reserves; to be exact, eight-tenths of 1 per cent on the average in 1924—merely till money. Our savings banks also characteristically look to the commercial institutions for accommodation in case of need. Accordingly, all these institutions are most intimately related to and dependent upon the successful functioning of the commercial banking system. They are dependent upon the solvency of the commercial banking institutions for the safety of their deposited funds; and they are dependent upon the lending power of the commercial banking institutions for the conduct of their business from day to day. An inadequacy of commercial banking funds means a direct lessening of the underwriting activities and other operations of investment bankers; it means an impairment of the ability of the savings institutions and of the insurance companies to meet their financial engagements and obligations. And whenever there is a breakdown of this complicated commercial banking mechanism and an attendant collapse of the great superstructure of credit that has been reared upon the attenuated reserves of specie, the entire financial mechanism is thrown completely out of gear.[14]

All business is fundamentally dependent upon the commercial banking system.—Not only does the commercial banking system constitute the center of the entire financial structure, but it lies as well at the basis of all modern business operations. It is, indeed, the foundation of the whole complex financial and economic organization of modern society. Every business concern, practically speaking, is dependent directly or indirectly upon the commercial banks for the safety of deposited funds —whether in commercial or in savings institutions—and also for a continuous supply of borrowed capital. Let it once more

[14] Financial crises and panics will be considered in the following chapter.

be emphasized and let it again be visualized by reference to the chart on page 165 that the operations of the commercial banks are not confined merely to making loans for working capital; through the loans which they make to other financial institutions and through direct loans to corporations for fixed capital purposes, and especially through the purchase of corporate securities, real estate mortgages, etc., and through loans on collateral, they are also vitally related to the raising of fixed capital and to the entire investment market.

Especial emphasis is here placed upon the relation of the commercial banking system to the furnishing of funds for fixed-capital purposes, for the reason that practically all banking theory as well as banking legislation is based on the assumption that the function of commercial banks is merely to make loans for short-time commercial purposes—that the engaging in investment operations is outside the legitimate field of commercial banking and dangerous in its consequences. We shall have something to say in the following chapter on the possible dangers involved. For the present we may merely emphasize what has already been indicated, namely, the fact that the commercial banking system does furnish a large part of the funds required for fixed-capital purposes and that the investment markets are absolutely dependent upon commercial banking. The writer has elsewhere made an analysis of the investment business of national banks; and it appears that approximately 50 per cent of all the loans that are made by national and state banks and trust companies are devoted to investment uses and that when direct investments in securities are included, in the neighborhood of two-thirds of the credit extended by the commercial banks goes for fixed rather than for working capital.[15]

Any failure of the commercial banking system to function normally therefore has its direct effect upon every phase of financial and business activity. There are times when an inadequacy of commercial banking funds acts as a serious limiting factor upon all commercial, industrial, and financial operations;

[15] See *Journal of Political Economy*, XXVI (1918), 638–63.

and there are occasions when a collapse of the superstructure of commercial banking credit virtually paralyzes for a considerable period of time the entire economic organization. We shall consider specifically in the next chapter the occasions on which the commercial banking system does fail to accommodate itself to the varying needs of business, while in the chapter on the Federal Reserve System, which follows, we shall discuss the remedies that have been worked out for the elimination of some of the weaknesses that existed under the national banking system prior to 1914.

QUESTIONS FOR DISCUSSION

I. CLEARING-HOUSE RELATIONS

1. For what various reasons do banks in a given community have to make settlements with one another?
2. Why cannot the total amount due to the clearing house exceed the total amount due from the clearing house?
3. State the advantage in trading some checks directly rather than presenting them through the clearing house. Why should the figures representing such checks still be sent through the clearings?
4. What is the amount of the present daily clearances in New York City? in Chicago? (Consult the financial pages of the newspapers.)
5. What advantages has the clearing-house certificate over cash as a means of settling clearing-house balances?
6. What is the advantage of settling clearing-house balances through the Federal Reserve bank rather than by means of clearing-house certificates?
7. How can a bank that is not a member of a clearing house collect items on other banks in the same community?
8. It is sometimes said that the "clearings" afford an excellent barometer of business conditions. Why? Which would be better for this purpose, the New York or the Chicago clearings? Why?
9. Which seems to you to have been the most potent reason for the establishment of the New York Clearing House, the expense and loss of time in settling balances, or the competitive evils resulting from the fact that balances were settled only weekly?
10. Do you regard the fixing of uniform interest rates on deposits by clearing-house associations as a justifiable practice? Does it not smack of monopoly?
11. Why have clearing-house banks almost universally failed to make definite agreements as to rates on loans?

12. Do you find that there are wide variations in the discount rates of local banks? (See quotations in the daily press.)
13. It has been frequently suggested that a committee of bankers should be appointed by the clearing house to meet every day and determine what the rate on call loans should be for that day, and make this rate binding on all the member banks and the institutions that clear through them. The membership of this committee under such a system would be changed frequently, say, once every month. Would such a plan possess any advantages? Would it not be monopolistic?
14. Why have many clearing houses been led to adopt uniform charges on collections? Why is such a method hard to enforce? Is it not an attempt to restrain trade?
15. Is it your opinion that the banks make a great deal of profit on their collections?
16. Does the development of these various regulations and agreements indicate that there is the same tendency in the banking as in other fields to eliminate ruinous competition? Do you feel that there is grave danger of monopoly here?
17. What caused the resort to clearing-house bank examinations? What right has an association of banks to examine the affairs of an individual bank? Would it have any right to examine a non-member bank?
18. What advantage has a clearing-house examination over a government examination?
19. Do you believe that one can properly say at the present time that our banks are independent, competing institutions, "looking out solely for number one"?

II. RELATIONS BETWEEN BANKS IN DIFFERENT CITIES

20. Enumerate the various occasions for making payments in other towns and cities.
21. Enumerate as many ways as possible in which a payment in another city may be made. Do all these ways involve the use of banks, directly or indirectly?
22. What is meant by "correspondent" banks?
23. A in Chicago owes B in Grand Rapids $1,000. Upon the maturity of the loan, B places the note with his bank in Grand Rapids for collection. Describe the process.
24. What kinds of items do correspondent banks collect for one another? Is the service thus rendered to customers of much importance? State concretely how such items would be collected in the absence of a banking system.
25. In exchanging advice and information on financial and business affairs, do you think the small-town country banks can be of any particular service to their city correspondents?

26. Read through—in your library—some of the monthly news letters (or magazines) published by such institutions as the National City Bank of New York, the Guaranty Trust Company of New York, the National Bank of the Republic of Chicago, etc., and attempt to estimate the importance of the service thus rendered.
27. For what reasons did the national banking law permit the banks of the smaller cities to deposit a portion of their reserves in the banks of the larger cities?
28. Why is there so strong a tendency for funds to concentrate in the financial centers?
29. Explain why New York has become the great financial center of the United States.
30. What advantages ordinarily accrue to the small-town banks from the deposit of both reserve and "excess" funds in the financial centers? What advantages accrue to the banks in the large centers?
31. Turn to the financial statements on pages 345 and 347 and explain the items, "Due to banks" and "Due from banks."
32. For what reasons do correspondent banks borrow from one another?
33. Turn to the financial statements on pages 345 and 347 and indicate what accounts have arisen as a result of interbank borrowing operations.

III. LOANS, DEPOSITS, AND RESERVES

34. What bearing does the extent to which business men and people generally employ checks in meeting their obligations have upon the volume of bank reserves that is necessary?
35. What bearing does the development of the clearing-house associations have upon the amount of reserve which each bank must hold?
36. What bearing does the development of the domestic and foreign exchanges have upon the amount of reserves that banks should hold?
37. "The more highly organized the banking and credit system becomes, the smaller the cash reserves that are required." Explain this statement.
38. How do you account for the fact that individual deposits in the national banks as a whole are practically equal in amount to loans and discounts? Are deposits *always* greater or *always* less than loans and discounts? (See the chart on p. 461.)
39. "A bank cannot earn dividends by keeping the funds of its depositors lying idle in its vaults. The great problem of banking is to find investments which will keep these funds liquid." Is this an accurate statement of the essential problem of a commercial bank?
40. Would you say that a bank makes loans out of its reserves, or on the basis of its reserves?
41. State in your own words the purpose of a cash reserve, differentiating between ultimate and "till money" reserves.

42. What determines the amount of "till money" that is required by a bank?
43. "The more highly organized the banking system becomes, the smaller the reserves that are required." Why?
44. Turn to the table on page 498 and ascertain the reserve ratio in the national banks as a whole during the years there in question. How do you explain the fact that they are much below the minimum reserve requirements for the different classes of banks?

IV. THE COMMERCIAL BANKING SYSTEM AND THE SUPPLY OF LIQUID CAPITAL

45. Turn to the chart on page 165 and indicate in what ways the commercial banking system supports the other financial institutions which make up the financial structure of society. Indicate the probable effects upon each of these institutions of a failure of the commercial banking system to function in its customary way.
46. Show in what ways commercial banking is related to the investment, or fixed-capital, aspect of business enterprise. Without the commercial banking system, would it be possible for corporations to raise the volume of funds required for their operations?
47. "The outstanding feature of the commercial banking system is the ability to gather together a large portion of the monetary reserves of the nation and organize them in such a way as to multiply many times the volume of loanable funds." Of what significance is this fact?
48. Make a *tentative* statement of your views as to the probable relationship of the increased supply of currency that is created by the commercial banking system to the level of prices. State, also, what doubts or questions in connection with this problem occur to you.

REFERENCES FOR FURTHER STUDY

Agger, Eugene E.: *Organized Banking*, chap. vi.

Cross, Ira B.: *Domestic and Foreign Exchange*, chap. ii.

Davenport, H. J.: *The Economics of Enterprise*, pp. 259–65.

Dewey, Davis R., and Shugrue, Martin J.: *Banking and Credit*, chaps. xx and xxi.

Fisher, Irving: *The Purchasing Power of Money*, pp. 33–47.

Magee, James D.: *Materials for the Study of Banking*, pp. 216–23, and 233–39.

Moulton, Harold G.: *Principles of Money and Banking*, Part II, pp. 94–123.

Phillips, Chester A.: *Bank Credit*, chaps. iii and iv.

Scott, William A.: *Money and Banking*, pp. 116–21.

Willis, H. Parker, and Edwards, George W.: *Banking and Business*, chap. xv.

CHAPTER XXII

COMMERCIAL BANKING AND THE EBB AND FLOW OF BUSINESS

In the chapters immediately preceding we have endeavored to reveal the nature of commercial banking operations and the general significance of the commercial banking system that has been gradually evolved. In all this discussion business conditions have been taken for granted; and the reader may well have assumed that the demands which business enterprises make upon the commercial banking system for fixed and working capital are constant in amount, except, of course, in so far as there is a gradual expansion in the volume of business and hence in the volume of funds required for its conduct. The truth is, however, that business is never stable and the demand for liquid capital is accordingly ever fluctuating. As one writer so well puts it:

> In the real world of business, affairs are always undergoing a cumulative change, always passing through some phase of a business cycle into some other phase. . . . . In fact, if not in theory, a state of change in business conditions is the only normal state.[1]

There are two species of fluctuations in business activity, the one seasonal and the other cyclical. In this chapter we shall consider the relations of the commercial banking system to the varying needs of business as determined both by seasonal exigencies and by the phenomena of the larger cycles in the ebb and flow of industrial activity. We shall endeavor to ascertain the nature of the demands that are placed upon our banking institutions in the alternate periods of seasonal activity and dulness, prosperity and depression, and the efficiency with which these varying demands are fulfilled. So far as the banking phase of the problem is concerned, we shall in the present chapter con-

[1] Wesley C. Mitchell, *Business Cycles*, p. 86.

sider the situation as it existed before the establishment of the Federal Reserve System; for only by disclosing the weaknesses in our banking organization before 1914 shall we be in a position to understand the purpose of the Federal Reserve System and to appraise its adaptability to the onerous requirements that are placed upon it.

I. SEASONAL VARIATIONS IN THE DEMAND FOR FUNDS

Within the course of a given year there are normally numerous ups and downs in business and trade, and an accompanying tension and ease in the money market. The best means of indicating the nature and causes of these seasonal fluctuations is to outline briefly the actual variations in money-market conditions in some of our leading financial centers. These will be found to reflect pretty accurately the fluctuations of business as a whole.

Before the establishment of the Federal Reserve System[2] there were usually four more or less distinct seasonal movements in the New York and Chicago money markets, as follows: (1) from early in January to the middle of February; (2) from the middle of February to the early part of April; (3) from the early part of April to about August 1; (4) from August to the end of the year.

The first movement is characterized by low interest rates. This is attributable to the fact that the crop movement, with its great demand for money in the West and South, has passed its peak, and has been followed by a heavy flow of cash from the country banks to the primary money markets. At the same time, the demand for funds is relatively slack, for business, in general, is characteristically dull during the interval between the

[2] The seasonal fluctuation in interest rates has apparently been greatly reduced if not entirely eliminated since the Federal Reserve System was established. There is some evidence that the seasonal variation in the demand for funds is at present reflected in the reserve ratios of the Federal Reserve banks rather than in the rates of interest charged.

holidays and the opening of the spring manufacturing and trading season.

The second period, which is marked by rising interest rates, is largely attributable to the monetary demand of producers and manufacturers. This demand is supplemented, particularly in the latter part of the period, by crop-planting requirements.

The third important seasonal variation is that of a weakening money market in April and May, followed by a genuine depression in June and July. This period at its beginning reflects a declining demand for funds by the manufacturing and producing interests of the industrial centers, and in its later stages the return of funds from the country districts following the completion of the crop-planting period.

The fourth season is generally referred to as the crop-moving period. The demand for funds in the country districts for the paying of farm labor, the storing of grain, and the moving of produce to the primary markets calls for an outflow of funds from the financial centers to the interior. At the same time, the demand from producing and manufacturing enterprises which are making ready for the fall trade becomes very heavy, thus bringing added pressure to bear on the financial markets. This period ordinarily reaches a peak in October, with interest rates commonly remaining high to the end of the year.

Seasonal movements in St. Louis, New Orleans, San Francisco, and other centers differ only in time and in extent from those in New York and Chicago, the variations being attributable to differences in climatic and other local conditions.[3]

Our currency supply has not been sufficiently elastic.—The seasonal variations in the demand for funds in the primary markets require a certain amount of elasticity in the currency supply. To some extent such elasticity has been obtained by a process of shifting funds from one section of the country to another. As noted in chapter xx, this is in considerable measure

[3] See E. W. Kemmerer, *Seasonal Variations in the Relative Demand for Money and Capital in the United States.* (National Monetary Commission, 1910.)

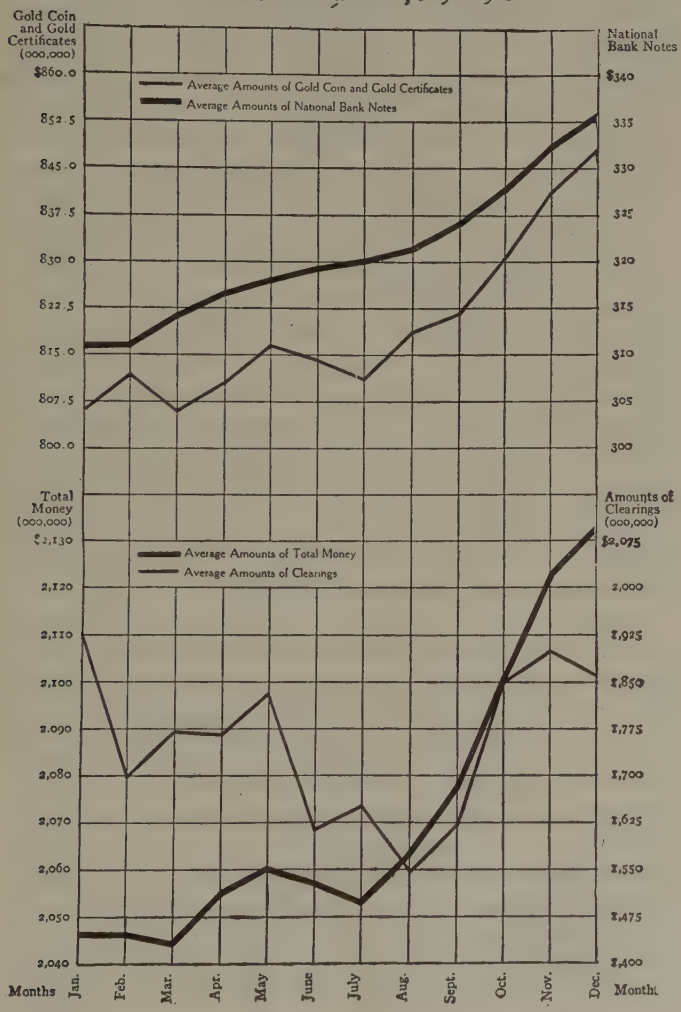
accomplished through the intermediation of commercial paper houses. But in periods of very active demand for money, particularly during the crop-moving season, which coincides with the period of producing and manufacturing goods for the autumn and winter trade, the total supply of currency within the country must be substantially larger than at other times if the needs of business and trade are to be adequately met. Accordingly, we should be able to expand the total volume of currency as occasion demands. Similarly, it is regarded as important that when these great seasonal demands have passed we should be able to contract the volume of currency. What now can be said of the elasticity of our currency supply?

The chart on page 477 shows the average amount of gold coin and gold certificates, national bank notes, deposit currency —as reflected in average clearings—and total money in the United States between 1890 and 1908. It will be seen that the gold supply does not increase or decrease in accordance with trade needs, the total supply depending upon: (1) bullion deposits at the United States mints and assay offices (dependent upon gold production); (2) net imports and exports of gold in the settlement of foreign balances; and (3) receipts and disbursements of the United States Treasury. The general upward movement of the gold line reflects the cumulative supply of this metal.

The national bank-note circulation is also very inelastic. The chart shows that the total supply gradually increases throughout each year; and that the fluctuations during the year do not coincide on the whole with the varying requirements of trade. The chief exception to this is to be noted in the autumn of the year, when there is typically a substantial increase. Kemmerer explains this by saying, "Apparently banks intending to increase their circulation postpone doing so until the crop-moving season approaches. There is no evidence of contraction, however, when the crop-moving demands are over—the national bank note elasticity being (to use a rather inelegant expression) of the chewing gum variety."

The reason for the inelasticity of bank-note currency is not difficult to find. As already explained, bank notes can be issued only when secured by United States government bonds. In the

SEASONAL VARIATIONS OF VARIOUS KINDS OF MONEY AND OF DEPOSITS IN THE UNITED STATES, 1890–1908



years under consideration the total supply of United States bonds available for use in this connection was about nine hundred millions and in the latter years of this period the total number thus being used was in the neighborhood of seven hundred millions. A restricted supply of United States government bonds would therefore at best prevent any very large increase in the total of bond secured currency. Of the total outstanding bonds not already serving as security for note issues, many were not in the market for sale and hence not available to the banks in case of need. This restricted supply of government bonds, moreover, tended to increase their price when demand for them was active and thereby to reduce the profits of the banks in thus employing their funds. Finally, because of the red tape involved in the issue of these notes, it required about three weeks for a bank located in the interior of the country to put them into circulation. After the bonds were purchased, it was necessary to send them to the federal Treasury at Washington where the notes were printed, bearing the name of the bank which was to issue them. The notes were then sent to the bank for the signatures of the officers, after which they could be put into the channels of circulation. While this time element did not prevent the banks from making preparation for autumn monetary requirements, it nevertheless did prevent a very effective use of bank notes in cases of sudden emergency.

The heavy black line at the bottom of the chart, showing the total currency supply by months during the years in question, also indicates no appreciable seasonal elasticity. The reasons why the other forms of currency besides gold and national bank notes do not possess the necessary elasticity may be recalled from the discussion in chapters v and vi.

Deposit currency alone exhibits a high degree of seasonal elasticity.—The line showing the average amount of clearings indicates a close adjustment of the supply of deposit currency to the varying requirements of trade. It expands when trade needs increase and declines when trade needs decline. An illustration of the way in which deposit currency gets into the channels of

circulation and is in turn retired will serve to indicate its automatically elastic nature.

Let us assume that X, a dealer in grain, has bought 10,000 bushels of wheat which is stored in warehouses, awaiting movement to the primary grain markets. X borrows, say, $9,000 from the bank, giving his promissory note with the warehouse receipt as collateral. Thus the security back of the deposit currency that arises out of this loan is the identical wheat, the necessity for the marketing of which gave rise to the increased demand for currency. The needs of trade at once call forth and provide the security for the currency which is created. As the grain is sold, X receives funds which he places on deposit with his bank; and when the loan matures he pays it off (usually and in the main) by a check against his account made payable to the bank. Thus when the produce has been marketed and the loan paid off, the deposit currency is automatically reduced by the amount of the loan.

While deposit currency thus readily responds to the varying requirements of trade, there is a limit to which it can be expanded, a limit imposed by the reserve requirements. We shall shortly see that in periods of acute financial crisis inadequate reserves have on many occasions prevented any further expansion of bank loans and deposit currency. Ideally elastic within limits, there is nevertheless a point at which the expansibility of deposit currency ceases.

The federal Treasury has borne an interesting relation to the money market.—The supply of funds for the needs of business is affected to some extent by the flow of specie to and from the federal Treasury. The Treasury Department normally receives funds largely from taxes. Some of the sources of taxation provide a fairly regular flow of income, but others a very irregular one. Similarly, some of the government's disbursements constitute a fairly regular outflow, while others are intermittent. Accordingly, there are times when the supply of funds in the Treasury is large, and there are times when it is small. There have been occasions, also, when, owing to the lack of a govern-

ment budget, the total receipts have been considerably in excess of total disbursements. In consequence, the disposition of government funds has always been a problem of no little importance. There follows a brief summary of the historical relations between the United States Treasury and the banks of the country.

1. From 1789 to 1796 the federal funds were mainly left in the hands of the collecting and disbursing officers, for the reason that there was no specific place for the custody of public money.

2. Between 1796 and 1811 public funds were kept mainly in the First Bank of the United States, which was the fiscal agent of the United States government.

3. Between 1811 and 1816, when the Second Bank of the United States was chartered, Treasury funds were kept mainly in state banks.

4. Between 1816 and 1833 the Second Bank of the United States was employed, although the state banks were still used to some extent.

5. Between 1833 and 1846 state banks were exclusively used. Charges of favoritism in the selection of state banks and the growing opposition to close relations between the banks and the Treasury led to the adoption of the "independent" Treasury in 1846.

6. From 1846 to 1863 public money was kept entirely in the federal Treasury and the nine subtreasuries which were located in the larger financial centers of the country.

7. With the establishment of the national banking system in 1863 the Secretary of the Treasury was authorized to deposit a part of the Treasury funds in certain national banks designated as depositary institutions for public money. For a time these banks were required to keep a special reserve against Treasury funds, although this practice was finally abandoned. Under the national banking system the amount of public money deposited with the banks steadily increased in volume until at times there was only a very small working balance in the Treasury. The subtreasuries were closed in 1920, and the government

now receives and makes its payments through the Federal Reserve banks.[4]

The Treasury has sometimes endeavored to relieve seasonal stringency.—The seasonal strain upon bank reserves became so great in the early autumn of 1912 that Secretary McVeagh developed a plan for relieving, as far as possible, the strain upon the national banks. The plan consisted of placing Treasury funds in banks in advance of any importation of gold that might be arranged for; such funds to be available as reserve money for the banks just as soon as arrangements had been completed for the import of specie. By making it possible for the banks to have the immediate use of such funds, the importation of specie was encouraged.

A still better plan was elaborated in the autumn of 1913. To quote the words of the Secretary of the Treasury:

> Toward the latter part of July symptoms of uneasiness began to appear. There was much talk about the difficulty of moving the fall crops, and the annual apprehension on this score began to stalk about the country with more than usual vigor. . . . . Conditions were again becoming acute when the Secretary determined to deposit from twenty-five to fifty millions of dollars of government funds in the national banks in those parts of the country where the necessity for funds to move crops existed.

These deposits were made on three different sorts of securities: (1) United States bonds at par (at least 10 per cent were required to be so secured); (2) miscellaneous bonds approved by the Secretary, at 75 per cent of their market value; (3) approved prime commercial or business paper indorsed by the bank, at 65 per cent of its face value (raised in 1914 to 75 per cent).

In the year 1913 a total of $37,386,000 was deposited in the banks of the cotton-growing states. The somewhat smaller amount deposited in 1914 is to be explained, in the main, by the issue of emergency currency at the outbreak of the European war, a considerable portion of which went directly or indirectly into the agricultural states.

[4] For the relation of the Treasury to the banks since the establishment of the Federal Reserve System, see pp. 591–93.

Treasury aid in meeting seasonal demands for currency is, however, confessedly a poor expedient. It does not give the requisite expansibility in the *total quantity* of funds; and there is never any assurance that the Treasury will have on hand funds of sufficient volume to fill the hiatus in the supply of bank currency.

II. CYCLICAL VARIATIONS IN THE DEMAND FOR FUNDS

The ebb and flow of business activity which characterizes the business cycle may best be shown by reference to the financial history of the United States. For the earlier years, precise data are not available, hence the summary account which follows relates chiefly to the major crises that occurred. The fluctuations since the late seventies are shown in more detail in the chart on page 485.

While there were some early disturbances of importance, it is generally stated that the first panic in the United States occurred in August, 1814. It was a direct result of the capture of Washington by the British, though the disruption of trade and the exigencies of war finance were contributing factors. This panic, however, was not the outgrowth of ordinary commercial and financial conditions; it was special in its nature.

The first genuine *crisis* in the United States occurred in 1819.[5] It may be superficially stated that it was an outgrowth of the abnormal expansion of manufacturing industries occasioned by the embargo and the War of 1812, and by the necessary readjustments that follow a period of paper currency. Not until late in 1821 did commerce and industry begin to revive.

There followed a period of great prosperity and rapid territorial and business expansion, which continued with but slight interruptions until 1837. In 1824 there was an industrial boom, and in 1826 there was a reaction, due, in part, to the European

[5] The first in American history was the one which occurred during the Confederation period, in 1786.

crisis of December, 1825; but these were merely temporary deviations from an otherwise fairly continuous expansion.

The crisis culminating in the disastrous panic of May, 1837, is associated with an undue extension of banking and credit, an overprovision of public roads, canals, and railways, and excessive speculation in western lands. Recovery from the panic was very slow; indeed, it was more than a year before the banks resumed specie payments. A period of depression followed until the summer of 1843, a premature revival in 1838 and 1839 resulting in a multitude of failures.

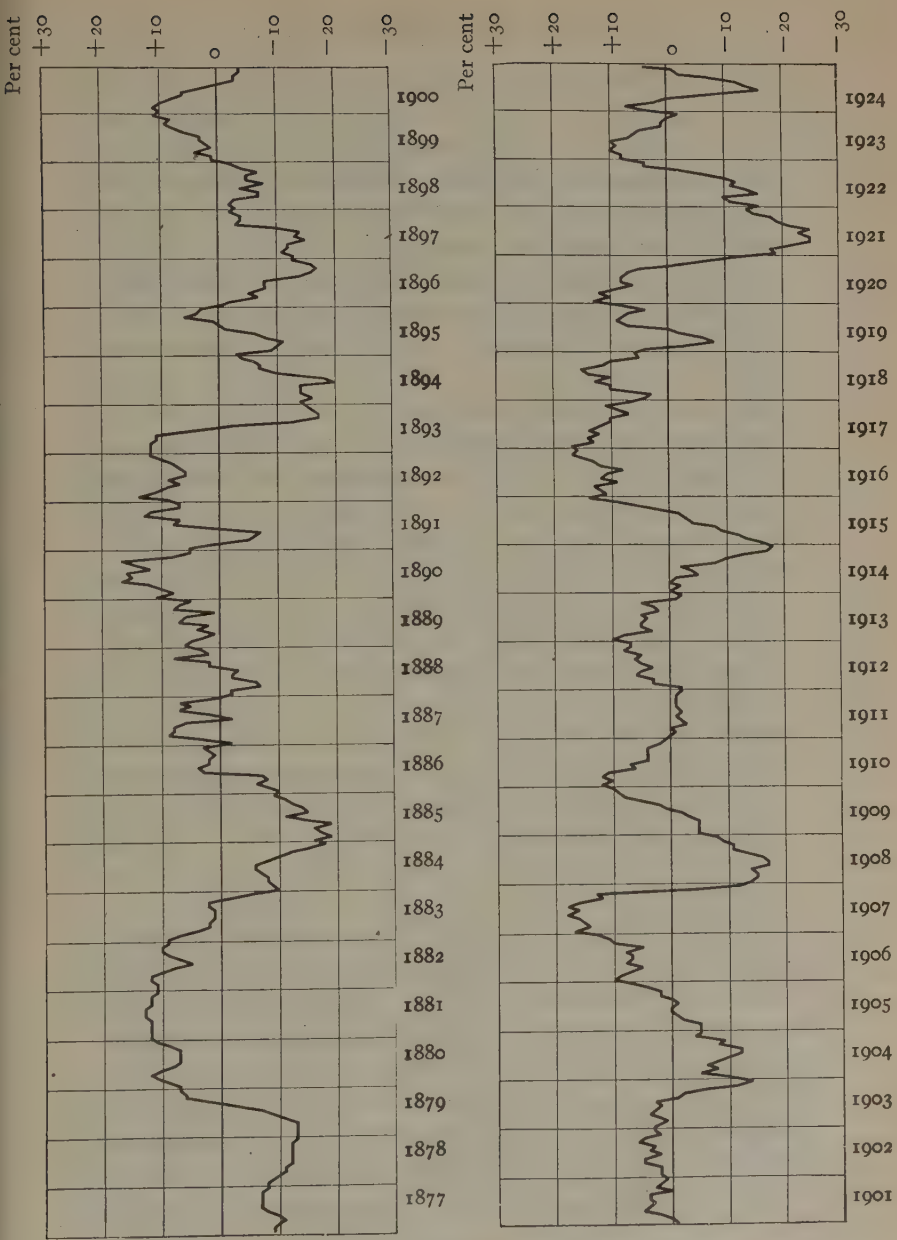
A general revival of trade began in the autumn of 1843 and continued without much interruption until 1857. The European crisis of 1847 exercised little influence here, owing to good crops and heavy exportations. There was, however, a minor crisis in 1848, occasioned in the main by the Mexican War. The period of rapid expansion came to a head in the very sudden and sharp crisis of August, 1857. While the financial disturbance appears to have been more acute than in 1837, industry and commerce were much less seriously affected, and in consequence the succeeding period of depression was less universal in its effects. The depression reached its worst phase in 1859. Conditions were rapidly on the mend in 1860, but the outbreak of war in 1861 so disarranged the financial and industrial affairs of the nation that the return of prosperity was postponed for a half-dozen years. There was a great crisis in England in 1866 which the war, no doubt, enabled us to escape.

Following the Civil War we entered upon a new era of industrial expansion. Wide areas of agricultural lands were opened up, immigration was heavy, railroads were built on a scale hitherto undreamed of—built far ahead of settlements and the demands of trade. It was a period also of wild speculation, dishonesty, and extravagance. The great crisis of 1873 affected practically every operation of commerce and finance, and shook the credit structure to its very foundations. The succeeding depression was unprecedented in severity and duration, continuing in most branches of industry until the end of 1878, and in some

lines until 1879. The largest number of failures occurred in the year 1878.

Prosperity returned with bountiful harvests and the resumption of specie payments in 1879. A period of world-wide prosperity was marked in the United States by another era of enormous railroad building, industrial expansion, and extravagant living, which ended in the crisis of 1883–84. The downward movement continued until late in 1885; after the recovery there was a season of activity until 1890, except for a mild depression in 1888. The great crisis in Europe attending the failure of the famous English banking house of Baring Brothers, near the end of the year 1890, was felt acutely in the United States. We escaped a complete breakdown, however, the enormous crops and heavy exports of 1891 tiding us over the threatening situation for another year or two. But in May, 1893, we again went to the wall with a panic which in many respects was even more severe than that of 1873. This crisis, however, was complicated by the unstable monetary standard of the time; and by many it has been called a monetary rather than a financial crisis. It was doubtless a result of combined influences. The fluctuations of business activity, above and below an estimated normal—with the general growth and expansion of the country eliminated from the picture—are shown for the years since 1877 on the accompanying chart. Since 1893 there has been only one financial panic, namely, in the autumn of 1907, but there have been almost continuous fluctuations in business and, as the chart shows, there have been some very pronounced booms and acute depressions.

The panic stage of the cycle has attracted most attention.—Of the various stages which comprise the complete round of the business cycle, the panic stage—which is marked by the breakdown of the financial mechanism and the suspension of specie payments—has of course attracted the greatest attention. Indeed, until comparatively recent times panics have been treated by many writers as more or less independent phenomena, rather



[1] Chart by courtesy of M. C. Rorty, (*Harvard Business Review*, January, 1923).

than as merely the culmination of a series of economic and financial developments—a single stage in a general financial process. Thus they are often referred to as sudden earthquakes or volcanic eruptions which appear when least expected and profoundly disrupt the normal economic structure. It is not surprising, perhaps, that writers should have stressed the phenomenon of the panic to the exclusion of other phases of the business cycle, for the outstanding features attending the financial panic are sensational in a high degree, and its social consequences are appalling.

In brief, a financial panic involves a practically complete breakdown of the delicate credit structure on which virtually the entire economic organization has been erected. On the business and commercial side, confidence, which lies at the basis of all lending or credit operations, is temporarily shattered; and on the banking side, the slender margin of specie reserves, on which has been reared the huge superstructure of deposit currency, fails to perform its function, with the result that the credit system breaks down and deposits are no longer redeemable in specie. And to make the immediate situation worse, the banks refuse to part with any specie; all of them are temporarily insolvent. The result is a currency famine for the ordinary needs of trade, a famine which can only in part be overcome by a resort to substitute means of payment in the form of clearing-house loan certificates, etc.[6]

The credit and business structure is extremely delicate.—The evolution of our credit system has resulted in a very close interdependency within the different divisions of industry and in the industrial system as a whole. For instance, producers of raw materials sell goods on credit to manufacturers; manufacturers sell goods on credit to wholesalers and jobbers; and these in turn sell goods on credit to the retailers, who in their turn characteristically sell on open or charge accounts to the ultimate consumers. Nor is it merely the different steps in the productive

[6] See pp. 515–17.

and distributive process within a given industry that are closely related; the different divisions of industry are all interdependent. For example, a decline in the demand for automobiles is shortly manifested in a reduced demand for steel, and for rubber and cotton used in making tires; while the laying off of workmen all along the line results in a slackening demand for the products of every industry. And as we have seen in preceding chapters, practically all of these various business concerns are in turn dependent upon the banks for at least a portion of the funds which they require. In consequence a breakdown of the complicated credit structure at any point involves a wholesale wreckage of established relationships. The failure of A to pay B makes it impossible for B to pay C, for C to pay D, for D to pay E, etc. Just as an entire row of dominoes is toppled down by tipping over the one at the beginning of the row, so also when credit relations are disrupted the whole chain of business establishments is involved in common loss or failure.

One of the outstanding features of the financial crisis, therefore, is wholesale failures of business concerns, many of which are forced into insolvency only because of their dependency upon other institutions which are unfortunately caught in the financial vortex. In the case of a major collapse, literally thousands of business concerns, some of them of the highest standing, are involved in ruin. Many large financial institutions are among them, although it should be noted that the temporary insolvency of the banks, of which we have spoken, does not usually denote a permanent inability to pay depositors in full. After a period of liquidation has elapsed, the great majority of banks are enabled to resume their normal operations.

The period of depression involves enormous economic losses.—Less striking, perhaps, but of greater social import, is the grave business depression that follows in the wake of a financial panic, involving an enormous volume of unemployment and acute suffering for millions of people. We may conceive of industrial society as a huge complex machine engaged in the process

of turning out commodities and services in the form of necessities, conveniences, and luxuries. At the height of the period of business prosperity this vast industrial machine may be regarded as running at maximum capacity, with virtually all of the industrial equipment and all of the labor-power of the nation fully employed and with returns in the form of profits and wages at a maximum level. Immediately following a panic, on the other hand, this machine is thrown completely out of gear. It is able to run, often for a period of several years, at from perhaps 50 to 60 per cent capacity, with business profits at a minimum; with wages at a low level; and with attendant suffering and misery for the unemployed millions.

The results of a panic may be indicated by the following statement of conditions that prevailed in 1908, shortly after the panic of October, 1907. For the first two weeks of January, 1908, gross earnings of the railroads were about 13 per cent less than in 1907. Whereas in September, 1907, there had not been enough railroad cars with which to move the traffic of the country, there were in 1908 approximately 320,000 freight cars and 8,000 locomotives standing idle, representing an investment of more than $400,000,000; and there were also more than 30,000 unemployed trainmen. The net earnings of the United States Steel Corporation declined from $17,052,211 in October, to $10,467,253 in November, and to $5,034,531 in December—a decline of over 70 per cent. The Bradstreet commercial agency reports informs us:

> It is safe to say that estimates of shrinkages of 30 to 50 per cent in sales and general turnover are not unreasonable. Iron output will probably be 50 per cent below a year ago. Shoe shipments are about 30 per cent below January, 1907. Lumber and all kinds of building material are very quiet the country over. There are widespread reports of unemployment in all sections of the country.

There have been numerous explanations of these financial cataclysms.—The phenomenon of financial crises, or panics, arose with the development of the modern credit and banking structure of society. And since this credit society of ours is now

nearly two centuries old,[7] there has naturally been a great deal of discussion on the subject of financial panics. This is not the place to enter upon an analysis of the many causes that have been suggested. It is sufficient to note that the periodicity of panics early attracted attention, and this naturally led to a study of influences that might account for their more or less regular recurrence. One of the most interesting of the explanations of the phenomenon is the famous sun-spot theory, elaborated by Professor Jevons, who gained a reputation both as an astronomer and as an economist. At first blush the sun-spot explanation of panics appears extremely far-fetched. Jevons reasoned, however, that changes in industrial activity are a reflection of changes in weather conditions, the argument being that a poor crop year would result in a lessened demand for commodities at the retail stores in all the rural communities and this in turn would be reflected throughout the entire industrial system in declining demand and consequent industrial stagnation leading to business failures and financial collapse. The sun-spots were invoked as an explanation of the periodicity of weather conditions, the idea being that the appearance of sun-spots was reflected in untoward weather. This theory, however, has been entirely discredited by virtue of the fact that there is no close correlation between observed sun-spots and weather conditions.

The most comprehensive study of the problem, however, is that made by Professor Mitchell and published in 1910 in a large quarto volume entitled *Business Cycles*. In evolving his theory of business cycles Professor Mitchell first made a statistical study of all of the financial, commercial, and economic data bearing on the ebb and flow of business activity in the four greatest commercial and credit nations of the world during four complete cycles, from 1873 through 1907. On the basis of his study of the concrete facts of the situation, Professor Mitchell has worked out a statement of the rhythm of business activity, which shifts

[7] Historians, however, record similar phenomena in connection with the credit and banking organization of early Italian cities and of certain of the commercial nations of antiquity.

the emphasis from a study of the financial panic, which is but one phase of the business cycle, to a study of the cycle as a whole with its various phases of depression, prosperity, crisis, and panic; and he shows conclusively, in my judgment, that our modern industrial and financial system is controlled by forces which are always at work to produce change, sometimes gradually, sometimes abruptly, but always cumulative change—change, however, which moves with a certain precision, and which gradually passes from one rather clearly defined stage to another.[8] We cannot do better than to give at this place Mitchell's own summary statement of the rhythm of business activity:[9]

With whatever phase of the business cycle analysis begins, it must take for granted the conditions brought about by the preceding phase, postponing explanation of these assumptions until it has worked around the cycle and come again to its starting-point.

A revival of activity, then, starts with a legacy from depression: a level of prices low in comparison with the prices of prosperity, drastic reductions in the costs of doing business, narrow margins of profit, liberal bank reserves, a conservative policy in capitalizing business enterprises and in granting credits, moderate stocks of goods, and cautious buying.

Such conditions are accompanied by an expansion in the physical volume of trade. Though slow at first, this expansion is cumulative. In time an increase in the amount of business which grows more rapid as it proceeds will turn dulness into activity. Left to itself this transformation is effected by slow degrees; but it is often hastened by some propitious event, such as exceptionally profitable harvest or heavy purchases of supplies by the government.

A partial revival of industry soon spreads to all parts of the business field. For the active enterprises must buy materials and current supplies from other enterprises, the latter from still others, etc. Meanwhile all enterprises which become busier employ more labor, use more borrowed money, and make higher profits. There results an increase in family incomes and an expansion of consumers' demands, which likewise spreads

[8] A more recent statistical study of the phenomena of business cycles is that made by Professor Warren M. Persons. See reference at end of this chapter.

[9] Wesley C. Mitchell, *Business Cycles*, pp. 571–79. (Copyright by the author, 1913. Published by the University of California Press.)

out in ever-widening circles. Shopkeepers pass on larger orders to wholesale merchants, manufacturers, importers, and producers of raw materials. All these enterprises increase the sums they pay to employees, lenders, and proprietors. In time the expansion of orders reaches back to the enterprises from which the initial impetus was received, and then the whole complicated series of reactions begins afresh at a higher pitch of intensity. All this while the revival of activity is instilling a feeling of optimism among business men.

The cumulative expansion of the physical volume of trade stops the fall in prices and starts a rise. For when enterprises have in sight as much business as they can handle with existing facilities, they stand out for higher prices on additional orders. This policy prevails because additional orders can be executed only by breaking in new hands, starting new machinery, or buying new equipment. The expectation of its coming hastens the advance. Buyers are anxious to secure large supplies while the quotations continue low, and the first signs of an upward trend bring out a rush of orders.

The rise of prices spreads rapidly, for every advance puts pressure on someone to recoup himself by advancing the prices of what he has to sell. The resulting changes in price are far from even: retail prices lag behind wholesale and the price of finished products behind the price of raw materials. Among the last mentioned the prices of mineral products reflect changed business conditions more regularly than do the prices of forest and farm products. Wages rise more promptly but in less degree than wholesale prices; interest rates on long-time loans always move sluggishly in the earlier stages of revival, while the prices of stocks both precede and exceed commodity prices on the rise.

In the great majority of enterprises larger profits result from these divergent fluctuations, coupled with the greater physical volume of sales. For while the prices of raw materials and of bank loans often rise faster than selling prices, the prices of labor lag behind, and the prices making up supplementary costs are mainly stereotyped by old agreements.

The increase of profits, under the spell of optimism, leads to a marked expansion of investments. The heavy orders for machinery, the large contracts for new construction, etc., which result, swell still further the physical volume of business and render yet stronger the forces which are driving prices upward.

Indeed, the salient characteristic of this phase of the business cycle is the cumulative working of the various processes which are converting a revival of trade into intense prosperity. Not only does every increase in the volume of trade cause other increases, every convert to optimism make new converts, and every advance in price furnish an incentive for new advances; but the growth of trade also helps to spread optimism and

to raise prices, while optimism and rising prices support each other. Finally, the changes going forward swell profits and encourage investments, while high profits and heavy investments react by augmenting trade, justifying optimism, and raising prices.

While the processes just sketched work cumulatively for a time to enhance prosperity, they also cause a slow accumulation of stresses within the balanced system of business—stresses which ultimately undermine the conditions upon which prosperity rests.

Among these is the gradual increase in the costs of doing business. The decline in supplementary costs per unit ceases when enterprises have secured all the business they can handle with their standard equipment, and a slow increase in these costs begins when the expiration of old contracts makes necessary renewals at higher rates. Meanwhile prime costs rise at a relatively rapid rate. The price of labor rises both because of an advance in nominal wages and because of higher rates for overtime. More serious is a decline in the efficiency of labor, because of the employment of undesirables and because crews cannot be driven at top speed when jobs are more numerous than men. The prices of raw material rise faster on the average than the selling prices of products. Finally, numerous small wastes creep up when managers are hurried by press of orders.

A second stress is the accumulating tension of investment and money markets. The supply of funds available at the old rates fails to keep pace with the swelling demand. It becomes difficult to negotiate new issues of securities except on onerous terms, and men of affairs complain of the "scarcity of capital." Nor does the supply of bank loans, limited by reserves, grow fast enough to keep up with the demand. Active trade keeps such an amount of money in circulation that the cash left in the banks increases rather slowly. On the other hand, the demand for loans grows, not only with the physical volume of trade, but also with the rise of prices, and with the desire of men of affairs to use their own funds for controlling as many businesses as possible.

Tension in the bond and money markets is unfavorable to the continuance of prosperity, not only because high rates of interest reduce the prospective margins of profit, but also because they check the expansion of the volume of trade out of which prosperity develops. Many projected ventures are relinquished because borrowers conclude that interest would absorb too much of their profits.

The group producing industrial equipment suffers especially. In the earlier stages of prosperity this group enjoys exceptional activity. But when the market for bonds becomes stringent and the cost of construction high, business enterprises defer the execution of plans for extending old or erecting new plants. As a result, contracts for this kind of work become less numerous as the climax of prosperity approaches. Then the steel

mills, foundries, machine factories, lumber mills, construction companies. etc., find their orders for future delivery falling off.

The larger the structure of prosperity, the more severe become these internal stresses. The only effective means of preventing disaster while continuing to build is to raise selling prices time after time high enough to offset the encroachment of costs upon profits and to keep investors willing to contract for fresh industrial equipment.

But it is impossible to keep selling prices rising for an indefinite time. In default of other checks the inadequacy of cash reserves would ultimately compel the banks to refuse a further expansion of loans on any terms. But before this stage has been reached the rise of prices is stopped by the consequences of its own inevitable inequalities. These become more glaring the higher the general level is forced; after a time they threaten serious reductions of profits to certain business enterprises, and the troubles of these victims dissolve that confidence in the security of credits with which the whole towering structure of prosperity has been cemented.

In certain lines in which selling prices are stereotyped by law, by contracts for long terms, by custom, or by business policy, selling prices cannot be raised to prevent a reduction of profits. In other lines prices are always subject to the incalculable chances of the harvests. In some lines the recent construction of new equipment has increased the capacity for production faster than the demand for wares has expanded under the repressing influence of high prices. The unwillingness of investors to let fresh contracts threatens loss not only to the contracting firms but to the enterprises from which they buy materials. Finally, the success of some enterprises in raising prices fast enough to defend their profits aggravates the difficulties of the men who are in trouble.

As prosperity approaches its height, then, a sharp contrast develops between the business prospects of different enterprises. Many are making more money than at any previous stage in the business cycle. But an important minority faces the prospect of declining profits. The more intense prosperity becomes, the larger grows this threatened group. In time these conditions bred by prosperity will force radical readjustment.

Such a decline of profits threatens consequences worse than the failure to realize expected dividends; for it arouses doubt about the future of outstanding credits. Business credit is based primarily upon the capitalized value of present and prospective profits, and the volume of credits outstanding at the zenith of prosperity is adjusted to the great expectations which prevail when affairs are optimistic. The rise of interest rates has already narrowed the margins of security behind credits by reducing the capitalized value of given profits. When profits begin to waver, creditors begin to fear lest the shrinkage in the market rating of business enter-

prises which owe them money will leave no adequate security for repayment. Hence they refuse renewals of old loans to enterprises which cannot stave off a decline in profits and press for settlement of outstanding accounts.

Thus prosperity ultimately brings on conditions which start a liquidation of the huge credits which it has piled up. And in the course of this liquidation prosperity merges into crisis. Once begun, the process of liquidation extends rapidly, partly because most enterprises called upon to settle put similar pressure on their own debtors, and partly because news presently leaks out and other creditors take alarm.

While this financial readjustment is under way the problem of making profits is subordinated to the more vital problem of maintaining solvency. Business managers nurse their financial resources rather than push their sales. In consequence the volume of new orders falls off rapidly. The prospect of profits is dimmed. Expansion gives place to contraction. Discount rates rise higher than usual, securities and commodities fall in price, and working forces are reduced. But there is no epidemic of bankruptcy, no run upon banks, and no spasmodic interruption of ordinary business processes.

Crises, however, may degenerate into panics. When the process of liquidation reaches a weak link in the chain of interlocking credits and the bankruptcy of some conspicuous enterprise spreads unreasoning alarm, the banks are suddenly forced to meet a doubled strain—a sharp increase in the demand for loans and the demand for repayment of deposits. If the banks meet both demands, the alarm quickly subsides. But if many solvent business men are refused accommodation at any price and depositors are refused payment in full, the alarm turns into a panic. A restriction of payments by banks gives rise to a premium on currency, to hoarding of cash, and to the use of various unlawful substitutes for money. Interest rates may go to three or four times their usual figures, causing forced suspensions and bankruptcies. There follow appeals to the government for extraordinary aid, frantic efforts to import gold, the issue of clearing-house loan certificates, and an increase in bank-note circulation as rapidly as the existing system permits. Collections fall into arrears, workmen are discharged, stocks fall to extremely low levels, commodity prices are disorganized by sacrifice sales, and the volume of business is violently contracted.

There follows a period during which depression spreads over the whole field of business and grows more severe. Consumer's demand declines in consequence of wholesale discharge of wage-earners. With it falls the business demand for raw materials, current supplies, and equipment. Still more severe is the shrinkage in the investor's demand for construction work of all kinds. The contraction in the physical volume of

business which results from these shrinkages in demand is cumulative, since every reduction of employment causes a reduction in consumer's demand, thereby starting again the whole series of reactions at a higher pitch of intensity.

With this contraction goes a fall in prices. For when current orders are insufficient to employ the existing equipment, competition for business becomes keener. This decline spreads through the regular commercial channels which connect one enterprise with another, and is cumulative, since every reduction in price facilitates reductions in other prices, and the latter reductions react to cause fresh reductions at the starting-point.

The fall in prices is characterized by certain regularly recurring differences in degree. Wholesale prices fall faster than retail and the prices of raw materials faster than those of manufactured products. The prices of raw mineral products follow a more regular course than those of forest or farm products. Wages and interest on long-time loans decline in less degree than commodity prices. The only important group of prices to rise is high-grade bonds.

The contraction in the volume of trade and the fall in prices reduce the margin of present and prospective profits, spread discouragements, and check enterprise. But they also set in motion certain processes of readjustment by which the depression is overcome.

The prime costs of doing business are reduced by the fall in the prices of raw material and of bank loans, by the marked increases in the efficiency of labor which comes when employment is scarce, and by closer economy by managers. Supplementary costs are reduced by reduction of rentals and refunding of loans, by writing down depreciated properties, and by admitting that a recapitalization has been effected on the basis of lower profits.

While costs are being reduced, the demand for goods begins slowly to expand. Accumulated stocks left over from prosperity are exhausted, and current consumption requires current production. Clothing, furniture, and machinery are discarded and replaced. New tastes appear among consumers and new methods among producers, giving rise to demand for novel products. Most important of all, the investment demand for industrial equipment revives. Capitalists become less timid as the crisis recedes into the past, the low rates of interest on long-time bonds encourage borrowing, and contracts can be let on most favorable conditions.

Once these forces have set the physical volume of trade to expanding the increase proves cumulative. Business prospects become gradually brighter. Everything awaits a revival of activity which will begin when some fortunate circumstance gives a fillip to demand, or, in the absence of such an event, when the slow growth of the volume of business has filled order books and paved the way for a new rise in prices. Such is the stage

of the business cycle with which the analysis begins, and, having accounted for its own beginning, the analysis ends.

It should perhaps be added by way of supplement to this analysis that not every period of prosperity develops to the point where great strain is placed upon the banking system. In the spring of 1924, for example, a period of prosperity closed at a time when interest rates had not been advanced at all and the banking system still had great unused lending power. Yet the period of depression which followed was rather severe. Likewise, the periods of prosperity in 1895 and 1909–10 were not followed by genuine crises, but business passed directly from prosperity to mild liquidation and depression.

Only a few words of comment with reference to the theory of business cycles are necessary at this place. It may be noted first that the forces which are at work in producing this ebb and flow of business activity are embodied in the very warp and woof of the modern industrial and financial structure. It may be concluded, therefore, that the ebb and flow of business prosperity will continue so long as the present industrial and financial structure of society, with its profit-making motivation, is maintained. And, indeed, under any organization of society there would be some fluctuation in the volume of business activity consequent upon the mutations of climate and other uncontrollable natural phenomena. But undoubtedly business fluctuations are most pronounced under the conditions that prevail in a profit-making and credit society.

While we may therefore regard the ebb and flow of business activity as the normal state of affairs, it is possible that the extent of the oscillations of business may be somewhat modified and that in particular the panic stage may be eliminated. Indeed, the panic stage has been for all practical purposes eliminated in European countries, and it is hoped and somewhat generally believed that it has been eliminated in the United States in consequence of the improved organization of our banking ma-

chinery under the Federal Reserve law.[10] If the reader is to appreciate the possibility of reducing the fluctuations of business activity and preventing a recurrence of panics, it will be necessary to consider in some detail the relation of the commercial banking system to the business cycle.

III. COMMERCIAL BANKING AND BUSINESS CYCLES

In Mitchell's analysis it was pointed out that in the period of depression bank reserves are large, with abundance of loanable funds at low interest rates. This reserve situation is due to the contraction of deposit currency that occurred during the liquidation process of the panic period, and to the industrial stagnation during the depression, which reduced the demand for loanable funds to a minimum. This plethora of funds at low interest rates is not of itself sufficient to bring about a revival of business activity, as is evidenced by the fact that the depression often continues for many years in the face of easy and cheap money. But when once business confidence has been increased—usually as a result of some fortuitous development—a plentiful supply of cheap funds becomes an undoubted factor in promoting the expansion of industry.

Of more significance, however, is the relationship of the supply of bank funds to the business cycle when the upward movement is approaching a critical stage. By virtue of their control of the purse strings the managers of commercial banking institutions are in a position to exercise a restraining influence—to control, in fact, the rate of business expansion and to prevent a continuance of the upward swing to the stage of acute crisis which ends in financial collapse and panic. Under the American banking system prior to 1914, however, American banks did not exercise any restraining influence on business, the banking statistics clearly indicating that no effort was made on the part of the

[10] For a discussion of the possibilities under the Federal Reserve System, see pp. 566–78.

banks, as a whole, to restrict the rate of expansion. The table below shows the changes in loans, net deposits (not including government), cash reserves, and reserve ratio at the time of the early autumn report on the condition of the national banks from 1897 to 1907.[11]

The great increase in the aggregate cash reserves during this period is mainly attributable to the gold imports resulting from our abnormally large exports of agricultural produce in the early years of the period, and to the great increase in gold production.

RESERVE POSITION OF NATIONAL BANKS 1897–1907

(Amounts expressed in millions)

Date	Loans	Net Deposits	Cash Reserve	Ratio of Reserve to Deposits
				Per Cent
Oct. 5, 1897	$2,066	$2,179	$388.9	17.9
Sept. 20, 1898	2,172	2,404	420.7	17.5
Sept. 7, 1899	2,496	2,952	466.3	15.8
Sept. 5, 1900	2,686	3,187	518.5	16.2
Sept. 30, 1901	3,018	3,554	539.5	15.2
Sept. 15, 1902	3,280	3,720	508.0	13.7
Sept. 9, 1903	3,481	3,863	554.3	14.3
Sept. 6, 1904	3,726	4,400	661.5	15.0
Aug. 25, 1905	3,998	4,735	665.6	14.3
Sept. 4, 1906	4,298	4,927	626.0	12.7
Aug. 22, 1907	4,678	5,256	701.6	13.3

It will be seen that there was a very marked decline in the ratio of reserves to net deposits. The reserves of the individual national banks were very near the minimum requirement. The slight improvement that is noted between September 4, 1906, and August 22, 1907, does not indicate that the banks were exercising credit restraint during that period; for the fact that the bank returns in 1907 were received by the Controller of the Currency two weeks earlier than in 1906 is sufficient to account for the difference, since the seasonal strain on the money market is normally more acute in September than in August.

[11] From O. M. W. Sprague, *Crises under the National Banking System*, p. 218.

The failure of the banks to exercise any restraining influence on the situation cannot be attributed to any lack of evidence that the situation was in need of control. As early as the San Francisco earthquake, on April 18, 1906, there were numerous indications that the upward swing of the business cycle was entering upon the critical stage. There was sharp tension in the money markets whenever any marked variation in the demand for loans occurred; there were practically no idle funds available for capital requirements, and the supply of loanable funds was inadequate for the needs of a still expanding business, conducted at constantly rising prices. In fact, practically all of the warning signs to which Mitchell makes reference in his analysis were clearly in evidence. And in March, 1907, occurred a stock market panic, attended by some of the severest declines ever known on the New York Stock Exchange. It had, however, no appreciable effect upon either business or banking psychology.

A few of the really studious and far-sighted bankers, it is true, realized the gravity of the situation and counseled a policy of extreme conservatism in the granting of loans. The following statement made before the New York State Bankers' Association by its president on June 27, 1907, less than four months before the panic, is indicative of the best banking thought:

> Until very recently no one admitted that his judgment dictated any policy of retrenchment. Gentlemen, we cannot hold the present pace. We should not hold it, even if we could. Though our depositors do not realize this, our unpleasant but perfectly plain duty is to curtail their accommodation lines and force retrenchment. We are in an era of extravagance, both corporate and individual, of extravagance in enterprise and of extravagance in expenditure; extravagance as much beyond precedent as is our feverish business activity.
>
> Expansion is not confined to the industrial and commercial world. For years banking facilities have been expanding out of all proportion to the growth of cash reserves. For several years there has not been a week in which all the New York clearing-house banks have held full reserves, and frequently half, or nearly half, have been short. The same tendency prevails throughout the country. Is it not time for bankers to check this un-

due expansion, to prune this tree too luxuriant for its roots, this fabric of credit built on an inadequate foundation of reserve?[12]

Independent, decentralized banking was responsible for the lack of credit control.—"Little heed seems to have been given to these warning signs, but much was made of every straw which suggested a possible further advance." This statement is applicable both to the business world and to the banking community as a whole, as the statistics of bank loans and reserves shown in the table above so clearly reveal. The explanation of this failure of the banks to control the situation has usually been assigned to the American system of decentralized and independent banking, that is, a system where the banks are not united through a centralized agency and where each particular banker formulates his banking policy in accordance with his own individual views—or lack of them. In describing the weaknesses of this system, a prominent student of banking reform says:

> The managers of each bank have the power to regulate the amount of its loans and discounts and the expansion of its deposit liabilities in relation to reserves, having regard to the condition of the particular bank which they control; but in the United States bank managers have no power to regulate the expansion of credits of all the banks with a view to the security of the general credit situation, and have no power, through the issue and redemption of bank notes, to prevent sudden and wide fluctuations in the credit power of the banks resulting from the fluctuations of the volume of currency used as a circulating medium. Though the managers of fifty, or of a hundred, out of the seven thousand national banks, may be of the opinion that, having regard to existing or prospective conditions, the expansion of credits has gone too far, they have no power to accomplish any substantial result. They could restrict the grant of credits by their own banks, and so lose profitable business that would go to other banks, but they could not materially improve the general situation. This was the case prior to the recent panic. For months before the panic many intelligent managers of banks and trust companies knew that the credit situation throughout the country had become strained, and accordingly, by restricting credits and by making call loans instead of time loans, many of them endeavored to strengthen their own institutions, but they could do little for the protection of the general credit situation.[13]

[12] Elliot C. McDougal, *Bankers' Magazine*, LXXV, No. 1, p. 1.

[13] Victor Morawetz, *The Banking and Currency Problem in the United States*, p. 36. (North American Review Publishing Co., 1909.)

This failure of either business men or bankers to realize the critical condition of business and to exercise any restraining influence over its further expansion permits a continuation of great business activity until it culminates in the stage of acute crisis, followed by panic. We may now consider the situation as it exists in the weeks immediately preceding the suspension of specie payments.

Concreteness will be given to the problem if we preface the discussion of the strain upon the banking system with a brief outline of the events of a typical crisis. The panic of 1907—that is, the suspension of specie payments and the general collapse of the credit structure—occurred on October 22. During the month of September, collection of business accounts was very slow, and the number of manufacturing failures was five times as great as in September, 1906. Where in the preceding months there had been perhaps a few hundred people who realized that economic and financial conditions were in a critical state, it had now become apparent to many thousands of business men that serious trouble was imminent. Declining sales, poor collections, inability to secure funds—these were facts actually existent; foresight was no longer required to adjudge the situation as grave.

The spectacular part of the crisis came with the failure of certain important financial institutions. The first of these was the stock-exchange firm of which Otto C. Heinze was president. This firm had been endeavoring, without success, to secure a corner on the copper market, and was finally caught on a declining market. There was a well-defined suspicion that F. Z. Heinze, who was president of the Mercantile National Bank, was interested in his brother's ventures in copper and that funds of the bank were being used in connection with copper speculation. Rightly or wrongly, he and his financial allies, who dominated seven banks and a trust company, possessing capital stock of $21,000,000 and deposits of $71,000,000, fell into public disfavor. The New York Clearing House, either because it believed the banks in question would be able to weather the storm or through fear of the effects of their failure upon the credit struc-

ture in general, agreed to render these banks assistance, provided Heinze and his associates were eliminated from their control. An announcement to this effect was made on October 21. On the very day of this announcement, however, the National Bank of Commerce proclaimed that after October 22 it would not be responsible for the clearing of checks drawn against the Knickerbocker Trust Company, whose president was thought to be allied with Heinze and his associates. This action at once brought the Knickerbocker Trust Company under public suspicion, and a run by depositors was started on the bank, which closed its doors after paying out eight million dollars in three hours. The resulting loss of confidence was followed by runs on the Lincoln Trust Company and the Trust Company of North America. These failures were in turn followed by several conspicuous commercial failures; and banks, in general, shortly "suspended specie payments for safety's sake."

The great need in time of crisis is for additional bank currency, partly in the form of bank notes, but more largely in the form of deposit or credit currency.—The reason for the pressure upon the banks for additional accommodation during a period such as has just been outlined can best be appreciated by considering the financial position of the individual business men who constitute the source of bank borrowing. In this connection the reader should recall the interdependency of the credit system and the strains and stresses that have already appeared before the stage of acute crisis has been reached. In a period when sales are falling off, with collections slow and the business future shrouded in uncertainty, there is a twofold reason why business men must seek unusually large accommodations from the banks.

In the first place, many loans are then required which would not be needed if collections were normal. Concretely, Y had been counting on paying Z out of funds received from X; but if X does not pay Y, then Y must either seek a loan from his bank with which to pay Z or else ask Z to wait for payment. In order to maintain their own credit standing in the trade, many concerns

thus placed, particularly those who pride themselves on always meeting their obligations promptly, choose the first alternative, that of seeking additional accommodation from the banks. The total added strain that is thereby placed upon the banks is in fact enormous.

In the second place, many business men procure in a time of credit strain what may be called "anticipatory" loans. Normally, funds are not borrowed until they are needed; but in times of great monetary and business uncertainty, when interest rates are rapidly rising, and when there is imminent possibility of one's not being able to secure funds at any price in the near future, many loans are in fact contracted before the actual need for funds has arisen. It is a case of being forearmed for trouble —by securing banking credits while the opportunity is still open.

The outstanding need in time of crisis is therefore an expansibility of the lending power of the banks. We have said that the need is partly for bank notes, but more largely for deposit currency. Interesting enough, the general public has always assumed that the need in time of crisis is primarily for increased quantities of circulating media in the form of notes. The fact is, however, that the great demand for actual currency comes after the suspension of specie payments, when the checking system has ceased to function. Then it is, and not until then, that the "currency famine" impresses the general public. This is not to say that there is not a need for an increased quantity of bank notes in the period preceding the suspension of specie payments. In the rural sections and to some extent in the financial centers, owing mainly to a hoarding of currency, there is an undoubted need for large additional quantities of bank notes. But for the reasons that we have already discussed, in studying the elasticity of our bank-note currency for seasonal needs, it has proved impossible for the banks to meet the demand for more notes. Here, then, is one important source of weakness in our commercial banking system.

But where there is a demand in the pre-panic period for a

thousand dollars of additional bank notes, there is a demand for millions of dollars of deposit currency. The banks as a whole can not, however, make additional loans and create additional deposit currency unless they can secure increased reserves. Hence the crux of the problem in the period of acute crisis lies with the condition of bank reserves.

In the period before the establishment of the Federal Reserve System, the fact is that it was impossible for the banks to increase the quantity of bank reserves. It obviously was out of the question to secure a quick increase in the quantity of gold production and it was usually impossible to secure enough specie from other countries, owing to the inability of our independent banks to unite in a policy of raising interest rates to a point which would attract gold from abroad. All the other forms of our currency, as we have already seen, are inelastic; hence all the banks could do was to conserve their existing reserves as best they might.

Hoarding cash intensifies the difficulties in time of crisis.—In fact, however, they were never able to make a very effective use of these reserves. As soon as a general public distrust of banking institutions develops, frightened bank depositors usually begin to withdraw cash so that in the event of panic their money will be safe. This withdrawal of cash, however makes a bad situation very much worse; for it depletes reserves at the very time when banks should be enabled to increase their cash holdings as a means of extending loans with which to meet the insistent demands of business for funds. Hoarding thus results in a sharp restriction of the lending power of the banks. It should be borne in mind in this connection that for every dollar of actual cash that is withdrawn from the banking system as a whole, lending power is curtailed to the extent of many dollars.[14]

Redepositing bank reserves is a potent source of difficulty.—The practice of depositing reserve funds of country banks in the financial centers still further increases the strain upon the banks

[14] See discussion of this point on pp. 464–66.

of these centers in time of crisis. Indeed, Professor Sprague tells us that "there has been no crisis since the establishment of the national banking system (in 1863), in which the New York banks would have been at all likely to have resorted to suspension had their difficulties been confined to those of purely local origin." There has been a tendency when confronted with acute crisis for each and every bank, under our decentralized banking system, to attempt self-preservation; each seeks to seize and hold all the cash that is obtainable. There is, in fact, a wild scramble for money—with the devil getting the hindmost.

The scrambling for currency among the banks serves very quickly to reduce the reserves in the central cities far below the legal minima. It will be recalled that the deposits of the country banks are placed in the financial centers on demand, that is, subject to call at a moment's notice. It will also be recalled that by virtue of our system of redepositing funds, reserves often serve in several places simultaneously. Now so long as no exceptional strain is placed upon the money market this system appears satisfactory enough; but in time of crisis the hard truth is revealed that the only effective reserve is actual specie. For if a country bank succeeds in withdrawing funds from the financial centers, its position is strengthened, but the bank from which its reserve is withdrawn finds itself in a correspondingly weakened position. If, on the other hand, the banks in the financial centers refuse to return the bankers' deposits on demand, this means at once a suspension of specie payments and the breakdown of the credit system in general. It appears to be a common view of students of the question that the former alternative was the lesser of two evils, and it is believed that in some, at least, of the major panics of the last forty years a courageous meeting of all demands for cash would have avoided the worst phases of the panic.

The strain on the banks of the financial centers was, however, undoubtedly very severe. In 1907, $4,400,000 of currency was shipped from New York to the West during the week ending October 19, and for the week ending November 16, $22,600,000

was sent to the interior. The New York Clearing House Committee, moreover, answers its critics who insist that a complete breakdown of the credit structure throughout the country might have been avoided if the New York banks had more fully responded to the demands of country correspondents by saying:

> To have fully honored the demands that were pouring in from all sections of the country would have dissipated our banking reserve in a fortnight. How could it be replenished? What would have been the effect on the country if the New York bank reserve had been entirely depleted? It would have so intensified the panicky feeling that widespread commercial disaster would have resulted. The $53,000,000 deficit in our banking reserve occurred in less than ten days after the failure of the Knickerbocker Trust Company, and was caused by the shipment to interior institutions of the larger portion of that amount in that short time. We kept the door of our treasure-house wide open until for the good of the country it became necessary everywhere to close it.

Other financial institutions are dependent upon the commercial bankers.—We have elsewhere seen that the commercial banks act as the repositories of funds for other financial institutions as well as for the general business public. Savings banks, bond houses, and insurance companies keep a portion of their funds on deposit with commercial institutions. Moreover, directly and indirectly they look to the commercial banks for accommodation in time of strain; that is to say, they either seek to secure from the commercial banks loans with which to tide themselves over difficulties, or through the sale of securities they endeavor to shift the burden of the financial strain to the commercial institutions.

Trust companies have also been dependent upon the commercial banks. This is particularly true of the commercial banking departments of the trust companies. Maintaining low reserves of their own and keeping a portion of these on deposit with commercial banks, they promptly attempt to shift the strain to which they are subjected in time of crisis to the commercial banks, either by a withdrawal of their reserve—as in the case

of country commercial banks—or by attempting to dispose of security holdings on a stagnant market.[15]

Loans were in fact typically contracted rather than expanded.—The banks of the financial centers are in a sense caught between the upper and nether millstones. An excessive demand for loans is placed upon them at a time when there is a rapid depletion of reserves as a result of individual hoarding and of the withdrawal of bankers' balances. It is not surprising, therefore, that the banks were unable to expand the volume of loans and prevent a general collapse of business. (It should be noted in passing that even if the banks had been able to maintain the convertibility of deposits into cash, they could not have sustained the business structure, unless they could have expanded the volume of their loans.) The following data[16] bearing on the crisis which came to a head on September 20, 1873, show what actually occurred:

Date	Country Banks	Reserve City Banks	Banks in New York	Total
Sept. 12, 1873	$478.5*	$262.5	$199.2	$940.2
Oct. 13, 1873	455.8	247.5	179.1	882.4
Nov. 1, 1873	442.0	242.2	169.1	853.4

* 000,000 omitted.

The contraction of loans between September 12 and October 13 indicates the sheer inability of the banks to perform the functions required. Rather than a contraction of loans there should have been a very great expansion in order to tide the business world over the critical period. In the better-organized European banking systems a sharp expansion of loans has always occured with a result that a general financial panic has been avoided—although European crises are followed by a period of gradual liquidation and by a general business depression of considerable duration.

[15] See pp. 508–9.

[16] From O. M. W. Sprague, *History of Crises under the National Banking System*, p. 82.

The Treasury gave what aid it could.—During the ten days from October 21 to 31, 1907, the federal Treasury transferred to the national banks of New York City $37,597,000. Since the strain of this panic at the beginning was greatest upon the trust companies, the national banks transferred these funds to the trust companies in order to prevent a run upon them. The Treasury Department also furnished the New York banks about $36,000,000 in small bills with which to meet the demands of the interior for currency. "As the stringency progressed, the Treasury gave relief in every important locality where assistance seemed to be required. By the middle of November the Treasury had deposited in the banks all the money it could spare; indeed, it had reduced its working surplus to about $5,000,000."

By way of indirect aid the Secretary of the Treasury resorted to various means of stimulating the purchase of government bonds as security for note issues; but relatively little was accomplished. Indeed, Treasury aid can count for little, at best; whether it can be of assistance at any particular time depends upon the chance possession of ample funds at such a time. This fact renders the system of no value as a scientific mode of relief in time of crisis.

Secondary reserves avail but little in time of crisis.—Thus far nothing has been said about the steps that were, or might be, taken by the banks, particularly those of the financial centers, for the replenishment of their cash reserves, through the conversion into specie of their "liquid assets." As noted in a preceding chapter, the problem of successful bank management is said to involve the making of loans of such a nature that they can be relied upon to furnish cash in case of need. The bank's assets other than cash are looked upon as a sort of secondary reserve—as assets which can be relied upon to liquidate themselves in case of need.

Call loans were long regarded as an admirable form of secondary reserve, for the reason that they could be converted into cash upon a moment's notice. Viewed from the standpoint of the

individual bank, call loans appear to possess an ideal liquidity; and in ordinary times, indeed, any one bank may replenish its funds by calling loans. In the event that the loan is paid by the borrower, well and good. In the event that the loan is not paid, the collateral can readily be disposed of on the stock exchange, the funds for the purpose being drawn from some other banking institution. In time of crisis, however, it has been found that the calling of loans furnishes no considerable relief; for when all banks are hard put for funds and all are endeavoring to sell collateral simultaneously, with none wishing to buy, the market for securities becomes automatically stagnant. Hence calling loans is a futile expedient, when viewed from the standpoint of the system as a whole.

Time collateral loans have never been regarded by the banks as particularly liquid in time of crisis. Only a few of them at such a time would be paid as they matured, and if they were not paid, it would be just as impossible to sell the collateral security as to dispose of call loan collateral.

Investments in readily marketable bonds have also been revealed as impotent to secure the needed replenishment of reserves; for, as in the case of the collateral back of call loans, there is no market for bonds when all banks simultaneously are endeavoring to dispose of them.

Commercial loans are not liquid in time of crisis.—But is not the commercial paper of customers, when based upon "legitimate business transactions involving the flow of goods from producer to consumer" automatically self-liquidating and hence absolutely reliable in time of crisis? This is indeed the general banking theory, and it is the theory underlying the banking legislation of our own and other countries. Commercial paper, it is said, being based upon the purchase and sale of goods, or, as the case may be, upon the ascertained excess of income over outgo during the life of the loan,[17] is certain to be paid at maturity.

[17] See discussion on pp. 358–65.

The truth is, however, that this is a fundamentally fallacious doctrine. Before the establishment of the Federal Reserve System the most unliquid asset in a bank's portfolio, both in ordinary times and in periods of stress, was the commercial paper of customers. It is not true, in the first place, that even in ordinary periods such loans are normally paid at maturity; the fact is that they are more often renewed than paid. Banks, indeed, have a general policy of requiring their customers to liquidate their indebtedness only once each year. Investigation, moreover, reveals that in many, and in a steadily increasing number of lines of industry, there is far from a complete liquidation of indebtedness once a year. Where loans are paid off to bank A the concern's working capital is commonly replenished by borrowing from bank B, either directly or indirectly through the intermediary of a commercial paper house.

There are seasonal variations, it is true, in the total demand for bank funds and in the total of outstanding bank loans, but there is never any period when it is unnecessary for the banking system as a whole to carry business as a whole. In ordinary times, moreover, as noted in the preceding chapter, the banks rely for funds with which to meet temporary needs not primarily upon maturing commercial paper, but upon the sale of collateral or securities, or upon borrowing from a correspondent bank in one or another of numerous ways. Liquidity is tantamount to shiftability.

When the crisis has developed it would be absolutely futile for the bank to rely upon an inflow of funds from maturing loans as a means of replenishing its reserves. At such a time renewals are certain to be almost universally demanded. It is a first principle that the bank's customers must be carried in a time of stress. We have already seen that there is an enormously increased demand for accommodation at such a time, that the fundamental need is for an expansion of loans, and that to contract them would precipitate the panic at once.

Our own banking experience, as well as that of all other

countries, has taught with the greatest possible conclusiveness that the ability to pass through a crisis without credit disruption rests not upon the ability of the banks to convert assets into cash—for nothing is liquid in time of crisis. It rests upon their ability either to draw upon unused reservoirs of reserves or to create new forms of reserve money that can be used as a basis for an expansion of loans.[18]

Banks have sought some relief through what is known as the equalization of reserves and the utilization of clearing-house loan certificates.—The equalization of reserves involves what amounts to a pooling of the cash resources of the members of the clearing-house association. Some banks, of course, have larger reserves than others and some links in the chain are accordingly weaker than others. An equalization of reserves is thus designed to equalize the resisting power of the banks in meeting the demands against them. A *clearing-house loan certificate* differs from the *clearing-house certificate* discussed on pages 441–42 in that, instead of being a claim check to cash that is on deposit in clearing-house vaults, it is in the nature of a loan from the clearing house, on the security of collateral deposited with a clearing-house committee.

A brief statement of the history of attempts by the clearing-house associations to meet the strains placed upon them in time of crisis will throw light both upon an interesting phase of banking competition and upon the question of the type of banking organization that is needed to control the credit situation at such periods. The use of these expedients by the clearing-house associations grew out of a plan that was apparently devised shortly after the crisis of 1857. They were first tried out in the rather severe financial strain of 1860–61, when the banks succeeded in passing the crisis without suspension of specie payments. In order to ascertain the efficacy of the devices in ques-

[18] For a fuller discussion of the liquidity of bank assets, see the author's "Commercial Banking and Capital Formation," *Journal of Political Economy*, XXVI (1918), 706–31.

tion, it will be necessary to consider specifically the way in which each is designed to relieve the strain.

If the clearing-house loan certificate were resorted to only by those banks which had adverse balances to pay, the result would be that such banks would be enabled to maintain intact their existing reserves, so far as payments to other banks were concerned. This would not, however, prevent a withdrawal of funds by individual depositors. Now if the only banks which resorted to the clearing-house certificates were those whose reserves were very low, and if the others continued to pay cash, there would in effect be some equilization of reserves, the banks with large cash reserves paying their adverse balances in specie, and the banks with low cash reserves postponing the payment of theirs. But in practice all of the banks, as a matter of fact, resorted to the use of the clearing-house loan certificate simultaneously, with a result that this device gave only a negative help to the banks whose reserves were low. It prevented a further depletion of them by payments of adverse balances at the clearing house. So far as the relations between banks were concerned, it amounted to a maintenance of the *status quo* in the matter of reserves. It will thus be seen that the use of the clearing-house loan certificate prevented the banks, to some extent, from working at cross-purposes, with resulting failure for some of them and consequent reaction upon all the rest. This device could not, however, prevent the failure of banks whose reserves were depleted as a result of heavy withdrawals of specie by depositors. In other words, it could not materially strengthen the weak links of the chain.

But the process of equalizing reserves, on the other hand, had more than a negative effect. By pooling reserves the banks whose funds were low became as strong as any other banks; each bank, in effect, was considered as having the same reserve as any other; no weak links remained, however delicate the chain as a whole might be. While the two devices differ somewhat in scope and purpose, it should be understood that they were designed to be used together.

The failure of the system of clearing-house loan certificates and equalization of reserves in the panic of 1873 is largely attributable to the practice of paying interest upon out-of-town bankers' deposits by the New York banks, a practice that was largely responsible for the concentration of funds in the metropolis through attracting reserves from the interior of the country. It had been expected, at the time the arrangement for the equalization of reserves was effected, that a clearing-house rule would be adopted forbidding the payment of interest on bankers' deposits. The banks were almost unanimously agreed to abolish this practice which had so seriously hampered the efforts of the New York banks to maintain specie payment in time of crisis; but by the refusal of a few members to accede, it failed to become a binding obligation. In 1873 it was found that twelve of the clearing-house banks were offering this inducement to attract deposits and were thereby securing the great majority of country-bank balances. When the crisis came, the strain immediately proved heaviest upon these banks, because of the large shipments of currency to the interior that were required. When reserves were equalized, the non-interest-paying banks found themselves contributing their cash reserves to the support of these twelve institutions which had not resisted the temptation to secure the profits obtainable from the practice of attracting interior funds to New York. Such a situation was of course not calculated to promote general good feeling on the part of the non-interest-paying banks.

There were other difficulties in the administration of the system which also tended to promote dissatisfaction.

> It was believed, and doubtless with reason, that some of the banks had evaded the obligations of the pooling agreements. . . . . Further, as the arrangement had not included bank notes, banks exchanged greenbacks for notes in order either to increase their holdings of cash, or to secure money for payment over the counter.[19]

The results of this experience so embittered many of the banks that, when in 1884 clearing-house loan certificates were

[19] O. M. W. Sprague, *Quarterly Journal of Economics*, XXIV, 232.

resorted to, there was immediately a powerful opposition to the equalization of reserves. "In the course of time," Professor Sprague tells us, "all recollection of the arrangement for the equalization of reserves seems to have faded from the memory of the banking community." We have already indicated that the use of the clearing-house loan certificate does not effect a thoroughgoing redistribution of banking reserves; and when it is resorted to by all banks simultaneously it only maintains the *status quo*, preventing banks from weakening one another, but effectually debarring them from rendering positive mutual assistance. The clearing-house banks have all come to adopt the use of clearing-house loan certificates simultaneously and in the relatively early stages of a crisis. It will be readily seen that this practice renders their use largely ineffective. After a thorough study of all the panics that occurred under the national banking system, Professor Sprague concludes "that the arrangement for equalizing the reserves, adopted in 1873, would have availed to prevent suspension on subsequent occasions is highly probable, indeed, a practical certainty." Whether this estimate of the potency of the system as originally worked out to prevent the suspension of specie payments and the worst phases of the financial collapse is correct or not, it is certainly clear that the simultaneous resort to the clearing-house loan certificates without an attempt at the equalization of reserves could not in the nature of things prevent a credit collapse in a period of acute strain.

This experience of the banks of New York furnishes another illustration of the way in which the commercial banks are inextricably involved in a system; it shows that no individual banker can entirely save himself or his customers in time of emergency, no matter how sure his vision or how careful his management. Bankers as a group—and with them business as a whole—must stand or fall together. It required well over a century of banking in this country, however, for this truth to be driven home with sufficient force to secure a reorganization

of our banking laws in such a way as to make possible the control of individual banking activities in the interest of banking and business welfare as a whole. The history of this attempt on the part of the banks to secure co-operative control of credit in times of emergency, moreover, throws no little light upon the nature of and difficulties involved in the general problems of organization and control through private initiative under modern financial and industrial conditions.

Various substitute forms of currency are resorted to in time of panic.—We have already seen that after the outbreak of a panic and the suspension of specie payments there is a "currency famine." It is impossible for individuals with deposit accounts to withdraw the funds in the form of cash, and since, for the time, these bank deposit accounts are not redeemable in specie, checks drawn against them will not be honored. The entire credit structure by means of which the overwhelming majority of our exchange transactions are effected is in temporary disintegration. With ordinary money unobtainable, and with the deposit system temporarily demoralized, it becomes necessary to use substitute forms of currency for conducting such business operations as are conducted. In 1907, for instance, the banks of about two-thirds of our cities having more than twenty-five thousand population suspended cash payments in whole or in part. Many different types of substitute currency have been distinguished, the most common of which are clearing-house loan certificates, clearing-house checks, cashier's checks payable only through the clearing house, and customer's checks marked "Payable only through the clearing house."

The clearing-house loan certificates were most commonly used, as already indicated, in settling balances between banks. To some extent, however, they were issued in denominations convenient for use in paying bank depositors. This was particularly the case in the panic of 1907. These small-denomination clearing-house loan certificates were secured by collateral deposited with the clearing-house committee, and were in

effect guaranteed by all the associated banks, inasmuch as all banks in the clearing house agreed to accept them at par.

The clearing-house checks differed from clearing-house loan certificates only in form. They were issued by the clearing-house associations to member banks upon deposit of approved collateral, and they were payable only through the clearing house; but, instead of being a promise to pay by the clearing-house association, they were in the form of checks on particular banks and were signed by the manager of the clearing house. Any bank in Chicago, for instance, desiring to issue clearing-house checks merely deposited the corresponding amount of clearing-house loan certificates of large denominations and received these checks in convenient size for general use. In effect they were checks secured by the clearing-house loan certificates, which in turn were secured by the collateral deposited with the clearing house.

Many national banks also issued cashier's checks in small denominations which were in effect substitute forms of bank notes. These checks commonly read "Pay to bearer," but in fact they were payable only through the clearing house. Sometimes such checks were unsecured and sometimes they were backed by special deposits of collateral with the committee of the clearing house.

Checks against customers' deposit accounts "made payable only through the clearing house" were mainly "pay checks" drawn by large concerns as a means of meeting their pay-rolls. They differed from other forms of currency in that they were the liability neither of the clearing house nor of the banks upon which they were drawn, but only of the corporation for whose benefit they were issued. These pay checks were issued

by railroads, mining companies, manufacturers, and storekeepers in a large number of cities. Shops and stores and places of amusement in the neighborhood of their issue generally accepted them and it is indeed surprising, considering their variety, their liability to counterfeit, and their general lack of security, how little real difficulty was experienced in getting them to circulate in lieu of cash.

It may be added here that these substitute forms of currency are retired from circulation as soon as the banks resume specie payments, usually a matter of a few weeks or months only, during which time the process of financial liquidation has run its vicious course and the demand for bank accommodations has declined to the low level which characterizes the period of business depression. A tax upon these irregular forms of currency expedites their return to the banks when the active need for them has passed.

While the panic stage of the business cycle may be eliminated, the ebb and flow of business activity and the recurring periods of acute financial strain can at best only be minimized.—In the foregoing discussion of the stage of acute crisis the impression may have been given that the eventuation of crises into panics has characteristically been largely accidental—that *if* a certain bank failure had not occurred under certain precise circumstances, that *if* the banks had postponed for a longer period the suspension of specie payments, that *if* people did not become unduly excited and hoard currency, that *if* the commercial banks and other financial institutions did not themselves join in the mad scramble for cash, panics would not have resulted. It is always true, in fact, that the beginning of the end is marked by some particular event which it would appear might have been avoided. But the statement of this fact must not lead us to forget that there are always certain fundamental conditions which precipitate these striking individual events, and that if the panic had not been occasioned by the failure of the Knickerbocker Trust Company, it might well have been caused shortly by the failure of some other bank or trust company—a failure brought about by the fundamental weakness of the banking credit structure at such a time.

This is not to say, however, that the match which precipitates the conflagration must perforce always be touched off. There have been occasions, in fact, when, had events taken a slightly different course, some of the periods of acute strain

which were passed without the suspension of specie payments might have resulted in complete panic. Nor is it intended to argue that the panic stage of the business cycle may not be permanently eliminated; it is believed, however, that, if the upward swing of the business cycle is allowed to continue to a point where bank reserves are exhausted, and if there does not reside in the banking system a means of then expanding temporarily the volume of loanable funds, a great many business failures and a very complete derangement of the entire economic and financial structure is inevitable. Granted that specie payments were not suspended as between the banks, and granted that the banks did not scramble for one another's reserves, and that in consequence they were enabled to restrict the quantity of credit, it would still remain true that the industrial and financial situation would be extremely serious. For unless loans can be expanded, with which to meet the inordinate demand for funds required to tide business over the period of crisis, there must be a general crumbling of the complicated credit structure, entailing a great number of failures and enormous losses to business generally.

And as we shall later see, even where the banking system is so constructed as to make possible a rapid expansion of loans in time of crisis, it is still impossible to eliminate a period of serious industrial readjustment involving many failures and accompanying losses. For the underlying conditions which have narrowed margins of profit and produced the strains and stresses in the economic and financial structure and precipitated the period of crisis cannot be eliminated without an intervening period of liquidation—which means concretely the elimination of poorly managed, poorly located, or poorly equipped establishments, readjustment in the volume of output on the part of practically all business, falling interest rates and declining prices and wages. The problem of control, therefore, is not one of eliminating the business cycle—except the panic stage—for this is impossible, as we have seen, under a profit-making, competitive

industrial system. The problem is rather one of minimizing the extremes of fluctuations that occur and thereby reducing as far as possible the social losses that are entailed. The chapter on the Federal Reserve System outlines the mechanism that has been evolved in the United States for thus controlling the credit system.

QUESTIONS FOR DISCUSSION

I. SEASONAL VARIATIONS IN THE DEMAND FOR FUNDS

1. Using the material on pages 474–75 draw a diagram indicating the seasonal variations in the demand for funds in the New York and Chicago money markets.
2. Is the business of your community subject to these particular seasonal movements?
3. What coincidence of business events occasions the extraordinary demands of the autumn season?
4. What conclusions do you reach from a study of the chart on page 477?
5. What is meant by the term "elastic currency"?
6. Is there any elasticity in the following forms of our currency: (*a*) greenbacks; (*b*) treasury notes of 1890; (*c*) silver dollars; (*d*) silver certificates; (*e*) gold certificates; (*f*) gold? What factors govern the total amount of gold that any country may have?
7. To what forms of currency must we look to give the necessary elasticity to the system?
8. What does the chart on page 497 indicate as to the relative elasticity of bank notes and deposits?
9. Explain in your own words the reasons for the inelasticity of bond-secured bank notes.
10. Explain in your own words the reasons for the elasticity of deposit currency.
11. What are the limits to the expansibility of deposit currency? Why cannot it be relied upon to meet any and all requirements of the autumn season, however heavy?
12. Why should business failures be more numerous in periods of tight money? Is this an unmixed evil?

II. THE FEDERAL TREASURY AND THE CURRENCY SUPPLY

13. What determines the total quantity of funds in the Treasury at any time?
14. What are the principal sources of federal taxation? Do they yield a steady or an intermittent revenue?
15. What is meant by the "independent treasury"?

16. Is it a matter of any importance whether the Treasury keeps its funds in its own vaults or in the banks: (*a*) in ordinary times; (*b*) in times of seasonal monetary strain?
17. Do you see any reason why the Treasury should not keep its funds on deposit in the banks—and in such particular banks as it chooses?
18. Why could not the federal Treasury be relied upon to give the necessary elasticity to the currency system?

III. CYCLICAL VARIATIONS IN THE DEMAND FOR FUNDS

19. Define the following terms: (*a*) cycle; (*b*) crisis; (*c*) panic.
20. Into what four stages may the economic cycle be divided? What are their relative durations?
21. According to Mitchell's analysis, what factors during a period of depression are conducive to an expansion of business activity?
22. What important factor is ordinarily lacking at such a period?
23. What fortuitous events hastened the recovery of business in 1897 and 1898?
24. Trace the effects of a bountiful harvest in accelerating business throughout the industrial field.
25. Trace the effects of a business boom in the iron and steel industry upon other lines of enterprise.
26. During periods of depression the demand for labor is slack and employment in many lines is intermittent. Trace the effects of the steady employment that results from the return of prosperity upon the activity of business in general.
27. Would you say that the increased purchasing power of labor in general is due mainly to increased money wages or to steady employment?
28. The upward swing of the business cycle may be divided into two periods: first, the period during which the slack is being taken up and the existing industrial equipment of the country is coming to be utilized at full capacity; second, the period when, in addition, there is a great increase in building activities—in the construction of additional capital goods. What are the effects of the second stage upon: (*a*) the demand for labor; (*b*) the demand for funds; (*c*) the cost of conducting business?
29. To what extent do you think that psychology plays a part in the rapid expansion of business? Would you say that business psychology is responsible for the expansion of business, or that business recovery occasioned by some fortuitous event breeds business optimism? What is it that converts business optimism into business pessimism?
30. What causes the development of "stresses and strains" in the industrial system? Why cannot the period of active prosperity go on indefinitely?

31. Why do these strains appear in certain lines before they appear in others?
32. Do you think the steadily rising prices and the resulting "high cost of living" has anything to do with the precipitation of a critical period?
33. "Costs continue to rise, and with increasing rapidity, as the business cycle reaches the top of its upward swing. This would not, however, lessen the margins of profit if prices were raised proportionally." Why, in fact, cannot prices be proportionally advanced indefinitely?

IV. COMMERCIAL BANKING AND BUSINESS CYCLES

34. What bearing has the condition of the commercial bank reserves upon: (*a*) the extent to which prices may rise; (*b*) the volume of business that may be conducted?
35. Would you say that the supply of available funds in a commercial bank has anything to do with the difficulties that early beset the construction industries? If so, how?
36. The crisis stage may be divided into two parts: (*a*) the critical period extending over a year or so; (*b*) the period of acute tension immediately preceding the panic. During this critical period, why is it that business men do not commonly heed the warning signs that are in evidence?
37. Under our national banking system as organized before 1914, why did not the banks heed the warning signs and exercise their control over the money supply in such a way as to compel a readjustment of business?
38. Do you think that bankers as a group share the general optimism that pervades the industrial world during a period of great prosperity?
39. In the period of acute financial tension, immediately preceding the panic, what responsibility is placed upon the commercial banks?
40. "The process by which all the banks at once are trying to strengthen their reserves is an altogether impossible process, a paradox, a death-blow at the very fundamental principle of banking. Any general attempt to convert banking paper or deposit credit into gold must promptly issue in a lamentable collapse of the whole credit machinery. . . . . When the banks themselves join in the scramble, the last hope of supporting the credit fabric has vanished." Why?
41. Assume a bank in New York to have deposits of $1,000,000, with a reserve of $275,000, or 27.5 per cent. Assume (*a*) that additional loans are made to the extent of $100,000, and (*b*) that depositors withdraw $50,000 in actual specie. What is, then, the ratio of reserves to deposits?
42. "In times of crises we have it clearly revealed to us that our banking

institutions constitute a *system,* and that individual banks cannot procure much aid from each other." In what way?

43. Turn to the financial statements on pages 345-48 and indicate what assets could be converted into cash in time of acute financial tension?
44. At such a period are the loans made to individuals who are engaged in actual commercial operations automatically liquidated as they mature?
45. Can the banks as a whole count upon having as many loans paid as there are demands for new loans?
46. Why could the national bank notes not be readily increased in volume?
47. Why could not the deposit currency be increased in volume?
48. "The fundamental need in times of crises is an increase in cash resources on the basis of which additional loans may be granted." Why?
49. Why was it not possible for our banks before the establishment of the Federal Reserve System to increase the total quantity of cash reserves? What factors, in fact, served to decrease the available cash resources of the banks?
50. Explain the effects of the system of redepositing reserves upon the banks in time of crisis.
51. Why were the banks of the United States obliged to reduce loans during the period of acute crisis?
52. Explain the difference between the equalization of reserves and the use of clearing-house loan certificates.
53. How do clearing-house *loan* certificates differ from clearing-house certificates?
54. Why was the provision for the equalization of reserves necessary to the successful use of the loan certificate?
55. Why could not the practice of paying interest on deposits be eliminated by clearing-house action?
56. Do you find in the history of this attempt to pool banking reserves a weakness inherent in the system of independent banking?
57. Why is it that the resort to clearing-house loan certificates by all the banks simultaneously—unaccompanied by the equalizing of reserves—largely defeats the purpose of this expedient?
58. At best, would the use of clearing-house loan certificates, with equalized reserves, reach the heart of the difficulty in time of crisis? Why, or why not?
59. Do you regard the various forms of clearing-house loan certificates and checks used in time of crisis as amply secured?
60. It is sometimes said that the great need in time of crisis is for more currency that will circulate from hand to hand, and that the resort to clearing-house loan certificates is proof of this contention. Do you agree?

61. For which is there a greater need in time of crisis, an expansion of deposit currency, or an expansion of bank-note currency?

REFERENCES FOR FURTHER STUDY

Agger, Eugene E.: *Organized Banking*, chaps. iv and v.

Hardy, Charles O.: *Risk and Risk-Bearing*, chap. v.

Holdsworth, John Thom: *Money and Banking*, chap. xxi.

Laughlin, J. Laurence: *Banking Progress*, chaps. ii, iii, and vii.

Mitchell, Wesley C.: *Business Cycles*, Parts I and III.

Moulton, Harold G.: *Principles of Money and Banking*, pp. 123–92.

Persons, Warren M.: In *The Review of Economic Statistics*, Harvard University Committee on Economic Research. April, 1919.

Phillips, Chester A.: *Readings in Money and Banking*, chaps. xxix, xxx.

Sprague, O. M. W.: *Crises under the National Banking System* (National Monetary Commission, 1910).

White, Horace: *Money and Banking*, Book III, chap. xviii.

CHAPTER XXIII

GOVERNMENT REGULATION OF BANKING

Commercial banking was one of the earliest forms of business to be subjected to governmental regulation. Because of the almost universal demand for the accommodation which banking affords, and because of the tremendous power that is inherent in the control of loanable funds, the banking business has long been regarded as quasi-public in its nature. Indeed, many people have asserted that banking operations are of such importance to the public welfare that they should be actually conducted by the government itself; that to permit private interests to control the supply of bank currency and make profits from the use of people's money is to foster one of the most vicious of monopolies. This extreme view has, however, never gained general acceptance; nor until recently have we, in fact, subjected all banks in the United States to some species of governmental control. Indeed, in some states it is still possible for individuals to engage in a general banking business subject virtually to no regulation whatever, although the numerous disastrous failures of private banks in recent years have led to an agitation against unregulated banking which promises eventually to result in its complete elimination.[1]

It is the purpose of the present chapter to outline the various regulations that are commonly imposed upon national and state banks, and to present the reasons for such regulations. The discussion must of necessity be confined to the more significant aspects of banking legislation; detailed provisions of the laws and of administrative decisions will be omitted.

[1] In 1924, 560 private banks having total resources of $150,943,000 reported to the Controller of the Currency.

I. SUMMARY OF AMERICAN BANKING HISTORY

While each of the main principles of regulation may best be presented as a separate problem and considered in the light of its particular history, a brief preliminary statement of the history of banking regulation in the United States will serve as a useful point of departure. This history may be conveniently divided into three stages: (1) from 1790 to the Civil War; (2) from the Civil War to the inauguration of the Federal Reserve System in 1914; and (3) from 1914 to the present time.

In the period before the Civil War banking operations in the United States were mainly conducted either by private bankers or by institutions chartered under state laws. During this period there were no national banks chartered for the express purpose of engaging in general banking operations, although the First Bank of the United States (1791–1811) and the Second Bank of the United States (1816–36) did make some loans for business purposes. The history of these federal banks will presently be considered.

During the pre-Civil War period the banking laws of the various states were extremely diverse and, with a few exceptions, notably in New England and New York, extraordinarily lax. In consequence the management of the state banks was usually no better than that of the private institutions which flourished at the time. While improvements were being made in the latter part of the period, banking organization, on the whole, remained in a deplorable condition until after the Civil War.

The National Bank Act passed in 1863 provided for the incorporation of national institutions under the general supervision of a Controller of the Currency. These institutions were designed to engage in general banking operations and to supplant the state banks in the issue of bank-note currency.[2] The framers of the law profited much from previous state banking experience and many admirable principles for the regulation of

[2] The issue of state bank notes was effectively prevented in 1866 by the levy of a 10 per cent tax on all notes put out by state banks

banking operations were formulated. These will be outlined in the pages which follow.

Under the stress of competition, and in the light of improved knowledge of sound banking organization, the laws of the various states have gradually been remodeled to conform more closely with the provisions of the national law.[3] The changes in general banking organization and control that have been inaugurated by the Federal Reserve System are discussed in chapters xxiv and xxix.

The First and Second banks of the United States.—Only a brief statement is necessary with reference to the work of these federal banks. The purpose of their organization appears to have been a threefold one: (1) to act as fiscal agent of the United States government in the collection and disbursement of federal revenue; (2) to assist the Treasury in times of financial emergency, through the purchase of government bonds; (3) to promote a sounder and more stable bank-note currency and to exercise an influence in stabilizing business and financial conditions generally.

The First Bank of the United States performed a genuinely important service during the first twenty years of our national history. It acted as fiscal agent in the collection and disbursement of government funds at a time when the problems involved were particularly difficult because of inadequate private financial facilities. The First Bank also loaned several million dollars to the government during a period when federal revenue was both uncertain in amount and intermittently received. The bank did not, however, exert any great influence on the general currency and credit system. The charter expired in 1811 and failed of renewal by a single vote in the Senate.

The Second Bank of the United States had a very checkered

[3] There are some exceptions to this general statement, however, the chief of which is that the prohibition of the federal law against loans on real estate was not copied by the state laws. On the contrary, the Federal Reserve Act authorized certain national banks, within limits, to engage in real estate lending. See p. 531.

career. It was very badly managed during the first few years of its history; it extended credit with abandon and failed to maintain adequate specie reserves. It exerted no restraining influence upon the activities of the state banks, and on the whole it exercised an unfavorable, rather than a favorable, influence during the boom period and crisis of 1817–19. In the decade of the twenties, however, the Second Bank appears to have been competently managed and of genuine assistance in conducting the fiscal operations of the government. Moreover, in the critical year 1826 the bank was in a position to exert some influence in stabilizing business conditions. It never accomplished much, however, in the way of securing a more stable bank-note currency.

With the accession to power of President Jackson, in 1829, the Second Bank, owing to a combination of circumstances, became a political issue. From this time on, the management of the institution deteriorated, and its usefulness was seriously impaired; and when in 1833 President Jackson ordered the withdrawal of federal deposits from the bank, its fate was virtually sealed. The charter was not renewed in 1836; and from then until 1863 the United States was without any national banking institution. The later unfortunate history of the Second Bank is attributable not to any inherent defect in the bank itself, but rather to the exigencies of an era during which the doctrine that the centralization of political and financial power was essentially undemocratic was in the ascendancy.

II. PRINCIPLES OF GOVERNMENTAL REGULATION

Governmental regulation of banking is accomplished in several ways: (1) by supervising the original organization; (2) by prohibiting certain types of loans; (3) by requiring the maintenance of adequate specie reserves; and (4) by a system of bank examinations and reports. We may consider the reasons for each type of regulation.

1. *Supervising the original organization.*—Discussion of the reasons for governmental supervision of the initial organization of banks raises at once the whole issue of private versus regulated banking. The argument against private banking is, in brief, that although many unincorporated banks might conduct their banking operations on the most approved principles, many others might not—with resulting disastrous consequences to depositors. The contention that in the long run honesty and efficiency in bank management constitute the best policy is hardly a sufficient argument for permitting private banking, for the reason that so many people, unfortunately, consider that one bank is as good as another, regardless of antecedents and character of management. That depositors are in need of protection from inefficient and unscrupulous bankers is abundantly evident from the numerous cases of private bank failures in recent years, where disclosures have shown that the deposits of customers had been either confiscated outright or diverted to such speculative enterprises as to make practically certain the inability of the bank to meet its obligations. The incorporation of a bank, and the necessary conformity with general laws that this involves, does much to insure at least a minimum of honesty and efficiency in the conduct of the institution.

A statement of the causes of national bank failures will throw some light upon the necessity for restrictions upon banking operations, as well as for the system of bank examinations, to be discussed below. An investigation made by the Controller of the Currency in 1911 showed that 60 per cent of the failures of national banks were caused by violations of the National Banking law, 37 per cent of which were criminal violations. Twenty-three per cent were caused by "injudicious" banking, 13 per cent by shrinkage in values and general stringency in the money market; while 4 per cent resulted from the failure of large debtors and other minor causes.

Banks nowadays commonly take out their charters under a general incorporation law, although formerly incorporation

under a special act of the legislature was required. The principle underlying special incorporation is that it permits each application for a bank charter to be considered by the legislature strictly on its merits. It transpired in practice, however, that the granting of charters to engage in banking commonly became a part of the system of political spoils. "Charters were granted by Whig and Democratic legislatures only to their own partisans . . . . and shares in banks, or the rights to subscribe to them, were parcelled out by 'bosses' in the several counties." The reaction from this system eventually led to the establishment of a general incorporation, or "free banking," law in the state of New York in 1838. Under this free banking system any group of individuals who desired to engage in the banking business might be granted a charter for the purpose by the administrative branch of the state government, provided there was assurance that the bank would be organized and conducted in accordance with certain general requirements laid down by an act of the legislature.

This system of incorporation was very generally followed by the western states during the decade immediately preceding the Civil War; and in the National Bank Act of 1863 it was adopted as an essential part of the national banking system. It has since been gradually copied by all of the state governments, the time involved in making legislative investigations as a prerequisite to the granting of a charter having proved quite as important a factor in the drift toward general incorporation as have the political evils of the special-charter system.

The principal advantage of requiring the incorporation of banks is that it makes it possible for the government to control the size of banking institutions. The National Bank Act, as amended, for instance, lays down the following regulations with reference to the minimum capital requirements for national banks: in cities of more than fifty thousand population, a capital of not less than $200,000; of from six to fifty thousand inhabitants, a minimum capital of $100,000; of from three to six

thousand inhabitants, a capital of at least $50,000; and in towns up to three thousand population, a minimum capital of $25,000. The purpose of these capital requirements is to prevent the organization of a large number of very small banks, which in the nature of things would usually be less efficiently managed, and which would be certain to have a less extensive distribution of risks than banks of larger size.

Stockholders of banks are subjected to a double liability.—The stockholders of every national bank are held individually responsible "for all contracts, debts, and engagements of such association, each to the amount of his stock therein, at the par value thereof, in addition to the amount invested in such stock"; and similar provisions are found in the banking laws of most states. The purpose of this double liability of shareholders is to give a more ample protection to creditors of banking institutions than is afforded by the strictly limited liability principle. The quasi-public nature of banking institutions, which serve as repositories for the cash resources of all classes of people, warrants these extra precautions for the safety of depositors.

Some capital stock must be subscribed in advance.—Another provision of the national banking law is that half of the capital shall be paid in before business is started. The explanation of this provision is found in state banking experience before the Civil War. The early state banking laws permitted banks to commence operations as soon as a small portion of the capital stock had been actually subscribed in cash, the rest of the capital usually being represented by promissory notes of the stockholders. It was made to appear to depositors that the capital was really paid in and represented genuine resources of the bank; but when failures occurred, the true situation was of course immediately disclosed.

Accumulation of a surplus is also required.—The National Bank Act provides that before the declaration of a (semi-annual) dividend each bank shall "carry one-tenth part of its net profits of the preceding half-year to its surplus fund until

the same shall amount to 20 per centum of its capital stock." The purpose of this provision is to make sure that national banks shall gradually increase in size; for it is believed that the larger a bank's resources, the greater is the security of its creditors.[4]

2. *The regulation of loans.*—Since the chief source of bank losses, aside from defalcations, lies in the failure of bank borrowers to meet their obligations, it has been found expedient to place certain restrictions upon the lending operations of the banks. The provisions of the national banking law governing loan operations are the result of previous banking experience which showed that certain types of loans were fraught with special danger. The loan provisions of the National Bank Act, as amended, are as follows:

a) It shall be lawful for any such [banking] association to purchase, hold, and convey real estate as follows:

First. Such as shall be necessary for its immediate accommodation in the transaction of its business.

Second. Such as shall be mortgaged to it in good faith by way of security for debts previously contracted.

Third. Such as shall be conveyed to it in satisfaction of debts previously contracted in the course of its dealings.

Fourth. Such as it shall purchase at sales under judgments, decrees, or mortgages held by such association, or shall purchase to secure debts due to said association. [National Bank Act, June 3, 1864.]

Such associations shall not hold the possession of any real estate under mortgage, or hold the title and possession of any real estate purchased to secure any debts due to it for a longer period than five years. [National Bank Act, June 3, 1864.]

"Any national banking association not situated in a central reserve city may make loans secured by improved and unencumbered farm land, situated within its federal reserve district, but no such loan shall be made for a longer time than five years, nor for an amount exceeding fifty per centum of the actual value of the property offered as security. Any such association may make such loans in an aggregate sum equal to twenty-five per centum of its capital and surplus or to one-third of its time deposits, and such banks may continue hereafter as heretofore to receive time de-

[4] There is, however, some confusion of thought underlying this provision. See the author's "The Surplus in Commercial Banking," *Journal of Political Economy*, December, 1917.

posits and to pay interest on the same." [Federal Reserve Act, December 23, 1913.]

The Federal Reserve Board shall have power from time to time to add to the list of cities in which national banks shall not be permitted to make loans secured upon real estate in the manner described in this section. [Federal Reserve Act, December 23, 1913.]

b) To one person or corporation: The total liabilities to any association, of any person, or of any company, corporation, or firm for money borrowed, including, in the liabilities of a company or firm, the liabilities of the several members thereof, shall at no time exceed one-tenth part of the amount of the capital stock of such association actually paid in and unimpaired and one-tenth part of the unimpaired surplus fund, provided that the total of such liabilities shall in no event exceed thirty per centum of the capital stock of the association. But the discount of bills of exchange drawn in good faith against actually existing values, and the discount of commercial or business paper actually owned by the person negotiating the same, shall not be considered as money borrowed. [National Bank Act, as amended June 22, 1906.]

c) On security of own stock: No association shall make any loan or discount on the security of the shares of its own capital stock, nor be the purchaser or holder of any such shares, unless such security or purchase shall be necessary to prevent loss upon a debt previously contracted in good faith; and stock so purchased or acquired shall, within six months from the time of its purchase, be sold or disposed of at public or private sale; or, in default thereof, a receiver may be appointed to close up the business. [National Bank Act, June 3, 1864.]

The restriction on real estate loans has perhaps given rise to the most criticism and controversy. In brief, the objection to real estate loans is that they are of an unliquid nature. They are commonly made for long periods of time; and the mortgages given as security are not readily salable in a general market, as is the case with stocks and bonds. The chief argument for permitting national banks to make loans on real estate mortgage security is that it strengthens their competitive position. (It has already been noted that such restrictions are not found in state banking legislation.)[5] There can be no doubt whatever that the ability of the state banking institutions to make real estate loans has given them a decided advantage over national banks in the agricultural sections of the country.

[5] See p. 367. See also p. 538.

Without going into an extended argument on the merits of the subject, it may be suggested here that the discussion in the preceding chapter with reference to the liquidity of bank assets in general apparently leads to the conclusion that real estate loans would hardly be less liquid in time of crisis than would any other type of loan. As we shall see in the next chapter, the primary need in time of tension in the money market is access to some unused reservoirs of cash resources. It appears, therefore, that the amendment to the National Bank Act made by the Federal Reserve law, which permits national banks, within limits, to make loans on real estate, is clearly warranted.

The purpose of the limitation on the amount of credit that may be extended to any one person or corporation is to insure a relatively wide distribution of risks. The exception to this limitation stated in the last sentence under (*b*) above is attributable to the belief that two-name paper arising out of the purchase and sale of goods is always practically certain to be paid. In the light of the discussion of the relative merits of single- and two-name paper as given in chapter xviii, however, it would appear that there is very little merit to this particular exception.

The restriction against making loans on the security of a bank's own stock is mainly the result of some rather disastrous experiences in state banking practice before the Civil War. We have already seen that early state banking laws permitted banks to commence operations as soon as a relatively small portion of the capital stock had been paid in. Now the shares of stock already received by shareholders were often used as security for loans from the bank. In making the loan the bank issued notes; and these notes, which passed current as money, were then used by the shareholders as a means of purchasing additional capital stock. Thus it came about that a large amount of the bank's capital would be borrowed from the bank itself. In other words, the resources received by a bank from the sale of stock in large measure consisted only of its own liabilities, in the form of its

outstanding notes. In the event of failure the true situation was of course quickly revealed.

3. *The regulation of reserves.*—The reserve requirements of the National Bank and Federal Reserve acts are given elsewhere in the text.[6] The purpose of requiring banks to hold minimum reserves of cash is to prevent certain bankers, who, because of inadequate knowledge of banking principles or because of a disposition to take long chances with depositors' money in the hope of immediate gain for themselves, might allow reserves to be depleted to a point which would endanger the solvency of the institutions. It is of interest to note in this connection that the United States is the only important country that has established minimum reserve requirements. Whatever may be the case in other countries, however, our own banking experience has pretty definitely shown the wisdom of such requirements. In the early days of banking many institutions kept practically no reserves whatever, with the result that their outstanding notes depreciated in value and wrought havoc with the monetary system.

One weakness should be noted, however, in the requirement of minimum reserves. If there is fixed an absolute minimum under which banks may not cut even in case of an emergency, a rigidity is given to the banking system in time of credit strain that is highly unfortunate. It may well be argued that it is better to have no minimum requirements at all and to rely upon the banks to maintain, on grounds of self-interest, some reserves which will be available for use in time of emergency than to require very high reserves which may not be used in case of need. It is significant in this connection that the Federal Reserve Act permits the minimum reserves that are required for Federal Reserve banks to be cut under in case of great emergency.[7]

In times of financial strain the publication of the fact that

[6] For the reserve requirements of the National Bank Act, see pp. 462–63; for the requirements under the Federal Reserve Act, as amended, see p. 567.

[7] See p. 574.

reserves are down to the minimum permitted by law also, unfortunately, excites the general public and sometimes leads to a hoarding of currency, which seriously embarrasses the banks at a moment when, so far as fundamental conditions are concerned, no real danger of panic is imminent.

4. *Banking examinations and reports.*—As a means of enforcing the provisions of the National Bank Act, there has been established in the Treasury Department a separate bureau under the direction of the Controller of the Currency. The Controller appoints examiners whose duty it is to examine each bank in the federal system at least twice each calendar year, and oftener than that if considered necessary. In case these examinations reveal malpractices, inefficient banking methods, or a failure to conform fully with the requirements of the law, action is taken to correct the weaknesses disclosed; and if they are not shortly corrected, the charter is forfeited.

The national bank examiners also render assistance to the Controller of the Currency in helping him to form a judgment upon the advisability of granting an application for a national bank charter. It is the duty of the Controller not only to make certain that a new bank will conform with all the requirements of the incorporation law, but also to make sure that there is a reasonable need for the organization of an additional bank in the community in question; for one of the most potent causes of bank failures is the multiplication of banking facilities beyond the needs of business. The examiners are effectively utilized in gathering information, on the basis of which the Controller can make an intelligent decision as to the possibility of success for a new bank.

Every national bank is also required to make five reports each year to the Controller of the Currency, exhibiting in detail the resources and liabilities of the institution at the close of business on any past date specified by the Controller. The Controller may also call for special reports from any particular bank whenever it is deemed necessary. From the data thus obtained

the Controller is enabled to judge the conditions of banking and general business from time to time, as well as the status of each particular bank. He is also in a position to submit an annual report to Congress, presenting a summary of banking conditions and recommending any legislation which such conditions seem to warrant. These reports, moreover, constitute a veritable mine of information which is available for the use of students of banking theory and practice. Since the establishment of the Federal Reserve System, however, the importance of the work of the Controller of the Currency has very greatly declined, being overshadowed by that of the Federal Reserve Board. There is, in fact, no longer any good reason for the continuance of the Controller's office; the functions performed should be taken over by the Federal Reserve Board.

III. THE REGULATION OF STATE BANKING

In the foregoing discussion of banking regulation the references have all been to the provisions of the national banking laws. It remains to compare the banking regulations of the various states with those of the federal government. State banks are under the general supervision of state officials, designated by various names, the most common of which is perhaps State Superintendent of Banking. They are subjected to official examinations and are required to submit periodical reports, as is the case with national banks. In recent years there has been worked out a rather effective co-operation between national and state bank examiners. Summaries of the reports of state banking conditions are also included in the annual volume published by the national Controller of the Currency.

State bank legislation is similar to, though usually less stringent than, national bank regulation.—The following summary statement will indicate the character of state as compared with national bank legislation.

The minimum capital required for state banks varies in the different states from nothing to $50,000. In the South and West the requirement is

less than the $25,000 required for national banks. Some twenty states require but $10,000 or less. In twenty-nine of the thirty-seven states and territories which require a minimum under a general law, the amount is graded according to population. In most of these states $25,000 is the maximum, though several require $100,000. As compared with the national-bank minimum of $25,000 for towns of less than three thousand population, three states have higher, seven states have the same, and seventeen have lower requirements. As compared with the national-bank requirement of $50,000 for places of three thousand to twenty-five thousand population, over three-fourths of the states which prescribe a fixed capital have lower requirements. None of the state laws require more than does the national law, while several require much less. For cities of twenty-five thousand to one hundred and fifty thousand, three-fourths of all the states have lower requirements than the national-bank requirement of $100,000.

This difference in the amount of capital required is one of the noteworthy contrasts between national and state legislation, and this difference exists not in legislation only. Sixty-two per cent of the 11,319 state banks in operation on April 28, 1909, had less than $25,000, and 27 per cent had capital ranging between $10,000 and $15,000. A few states show some lack of banking ideals in permitting an authorized capital larger than the paid-in requirements, undue prolongation of the paying in of capital, and the payment of subscriptions to capital by means other than "cash" or "money of the United States."

The National Bank Act requires one-tenth of the net earnings to be set aside annually toward a surplus fund until it amounts to one-fifth of the capital. Nineteen states have this rule; seven states have more stringent provisions; Virginia has a lower requirement, and seventeen states do not require, by general law, such a surplus accumulation. In addition to this surplus fund added to capital, most states follow the National Bank Act in providing for the double liability of shareholders. In nineteen states the shareholders are responsible "equally and ratably and not for another." In fourteen states the shareholders are liable "jointly and for each other." Sixteen other states are more lenient, imposing no statutory liability whatever.

With reference to the regulation of loans the state banking laws are in general more liberal than the federal law. The National Bank Act limits the amount of any single liability due a national bank to one-tenth of its capital and surplus and to 30 per cent of its capital stock. With the exception of two states the state banking laws are far more liberal. Some twenty-two states allow from 15 per cent to 30 per cent of capital and surplus as the limit to each individual liability to a bank, and ten states have no limitations whatever.

The National Bank Act permits an excess if it consists of advances of bona fide bills of exchange and commercial paper actually owned by the negotiator. The state laws, in addition to these, make exceptions in favor of loans on real estate mortgages (six states); loans on bills of lading and warehouse receipts (eight states); loans on collateral security (fifteen states); and loans approved by a vote of the directors (four states). This greater liberality may be accounted for by the smaller size of most of the state banks and the difficulty of enforcing restrictions. Even in the national system enforcement is not easily accomplished, for as late as September, 1909, over one thousand banks (or 15 per cent of the total) voluntarily reported excessive loans. Several of the eastern states have recently set limitations as to the amount of any one loan, irrespective of the individual's liability.

Another important contrast between national and state banks is the power conferred upon the latter and denied the former to loan upon real estate. A few states limit the amount to be put into real estate loans. The prevailing practice is to limit these loans to 50 per cent of the capital or capital and surplus. A few place the limit at from 15 per cent to 40 per cent of the assets, and some at 20 per cent of the loans. State laws define the character of these loans as to the location of the property, the character of the lien, or the proportion which the value of the real estate must bear to the amount of the loan. Holdings of real estate are limited to a five-year duration following a foreclosure sale.

These real estate loans are a larger proportion of the total loans in the smaller towns and cities. And "notwithstanding the disadvantages of real estate as a convertible asset, the power to loan on the security of real estate is a valuable one to many of the state banks." On April 28, 1909, 20.6 per cent of the total loans and discounts of state banks were based upon security of this character. Insofar as the deposits of state banks are time deposits, this form of lending cannot be troublesome, though it is not suitable for active commercial banks in large centers of population.

The third great difference between national and state bank laws is found in the reserve requirements. Here, also, the state and territorial laws are the more lenient. At present (1910) in ten states no reserve whatever is required for incorporated banks. In fourteen states a reserve is required only against demand deposits. The amount ranges from 10 per cent to 25 per cent, although 15 per cent is commonly required. In six other states a lower reserve is required against time deposits than against demand deposits. This ranges from 4 per cent to 15 per cent for time deposits as against 15 per cent to 25 per cent for demand deposits. In sharp contrast the National Bank Act required from 15 per cent to 25 per cent of all deposits. This example has been followed in but thirteen states.

Not only in regard to the amount of reserve, but also as to its form,

do state and national laws differ. All states permit balances in other banks to be counted as a part of the reserve. The amount of redeposit so authorized varies from one-half to three-fourths.

In seven states "the banks determine for themselves what part of their reserves shall be cash in bank and what part shall be in the form of bank balances." In four states bonds may be counted in the reserve. In the choice of depositaries the state banks are practically unrestricted. In but five states are distinctions made between the reserves required of ordinary banks and reserve agents.[8]

The trust company legislation of the various states has been even more lenient than that pertaining to state commercial banks.—This statement applies to the granting of loans, to the maintenance of specie reserves, and to subscriptions to capital stock, though not, typically speaking, to the minimum capital requirement. Trust company legislation is in recent years, however, being brought into closer conformity with state banking legislation.

IV. THE REGULATION OF BANK NOTES

The regulation of bank-note issues is presented here as a distinct and separate phase of the problem of banking organization and control only because of its historical importance, bank-note regulation having given rise to more discussion and controversy than have all the other problems of banking control combined. The discussion that from the very beginning of our banking history has centered around the issue of notes is attributable, in part, to the fact that notes were long the primary form in which bank obligations were manifested; in part, to the fact that they pass from hand to hand as currency without regard to the character of the persons passing them on, and form, in consequence, a part of the money supply of the country; and, in part, to the fact that we look to bank notes to provide the necessary flexibility in the money system as a whole.

There are three principal ends to be achieved when regulat-

[8] Adapted from J. F. Ebersole, "The Relation of State to National Banks," *Proceedings of the American Academy of Political and Social Science*, I (1911), 286–90.

ing bank-note issues: (1) they must at all times be maintained at a parity with standard money; (2) they must be amply secured so that there can be no question of their ultimate value; and (3) they must be made elastic, that is, responsive to the varying requirements of trade. During our earlier history the first two of these problems were the chief sources of controversy; but in recent years—with immediate parity and ultimate security accomplished facts—the discussion has centered around the problem of elasticity.

1. *Maintaining the parity of bank notes.*—Since bank notes are designed to pass from hand to hand as currency it is necessary to insure at all times their parity with standard money, lest their issue lead to a depreciation of the currency and a general unsettling of prices. Various devices have been employed for insuring the parity of bank notes, the chief of which are (1) making them a legal tender in some very important connection, such as in the payment of taxes, and (2) providing for their easy, quick, and constant convertibility into standard money.[9] The first of these devices has never by itself been found adequate, although it no doubt may have contributed somewhat to the success of the other methods.

In order to insure the continuous convertibility of bank notes into standard money it is necessary, first, that the issuing bank stand ready at all times to redeem its own notes when presented over its counter. But in order to keep the notes at par when they have wandered far from the issuing bank it has also been found necessary to make them redeemable at certain agencies in important banking centers with which banks everywhere are in close relations; or to make them redeemable at the Treasury of the United States. This latter method is employed in connection with our present national bank notes.

2. *The security of bank notes.*—This aspect of the problem of bank-note regulation relates to the *ultimate* value of bank notes rather than to their *immediate* convertibility into specie.

[9] For other methods see pp. 88–89.

Several different methods have been employed to insure the holders of bank notes against ultimate loss, the three most common of which are as follows: (1) To rely upon the adequacy of the bank's assets to meet all note obligations in full. This is sometimes accompanied by a provision which gives the holders of notes a prior claim against the assets of the bank. (2) To require the bank to maintain a special security for a note issue, such as government bonds. This is the method employed by the national banking system of the United States. (3) To require the bank to set aside certain of its commercial assets as security for its note issues. This third method is specifically designed to promote elasticity in the bank-note system rather than to insure safety. It is believed, however, that both safety and elasticity can thus be attained.

It is unnecessary at this place to present the history of bank-note regulation, or to enter into a discussion of the various problems of regulation associated with the issue of bank notes, for they receive sufficient attention elsewhere in the text. The weaknesses of the system of bond-secured notes from the viewpoint of elasticity are discussed in the preceding chapter, while the advantages of asset currency in the same connection will be pointed out in the analysis of Federal Reserve notes in the chapter which follows.

QUESTIONS FOR DISCUSSION

1. Can you advance any sound arguments against the abolition of private banking?
2. Draw up a statement of the arguments against private banking.
3. What is meant by "free banking"? What are the arguments in favor of it?
4. What are the weaknesses in the system of general incorporation?
5. How would you determine how large a capital a particular bank, to be located in a particular community, should have?
6. Do you have any criticisms to offer of the capital requirements under the National Bank Act? under the state banking laws, as summarized on pages 536–37.
7. In what way does the accumulation of a surplus tend to increase the security of a bank's creditors?

8. Would you favor the abolition of the double liability requirement for bank shareholders? Would you favor the extension of this principle to non-banking corporations?
9. What is the objection to allowing a bank to commence business before the capital is fully paid in?
10. Write out a summary statement, giving the arguments for the various provisions governing the making of bank loans.
11. What do you think of the argument that it is dangerous for a commercial bank to make any considerable volume of loans on the security of real estate mortgages?
12. If you were asked to draw up a banking system for one of the Central American states, would you follow the American practice of requiring minimum specie reserves, or the European practice of permitting each bank to formulate its own reserve policy?
13. Look through one of the annual reports of the Controller of the Currency in the library and draw up an outline statement of the significant data that it contains.
14. Which of the various ends to be achieved in the regulation of bank notes do you regard as most important? which the most difficult of attaining?

REFERENCES FOR FURTHER READING

Agger, Eugene E.: *Organized Banking*, chap. xii.

Dunbar, Charles F.: *Chapters in the History and Theory of Banking* (3d ed., enlarged by O. M. W. Sprague), chap. xi.

Moulton, Harold G.: *Principles of Money and Banking*, Part II, chap. vi.

Scott, William A.: *Money and Banking*, chaps. ix and x.

Willis, H. Parker: *American Banking*, chaps. xiii and xiv.

Willis, H. Parker, and Edwards, George W.: *Banking and Business*, chap. xxiv.

CHAPTER XXIV

THE FEDERAL RESERVE SYSTEM

The adoption of the Federal Reserve Act on December 23, 1913, marks the beginning of a new era in American banking development. For the first seventy years of our national history, banking as a business was conducted almost entirely under the regulation of the various states, with a resulting heterogeneity of banking laws and banking practice. The national banking system, dating from the Civil War, gave us, as we have seen, a uniform and a safe bank-note currency—though not a flexible one—and in general marked a real advance in the development of banking organization. With the passage of the Federal Reserve Act, fifty years later, we have entered upon a third stage in our banking evolution, a stage that may be characterized as one in which a long step has been taken toward centralization in the control of banking, one in which the differences between state and national banking are being slowly but surely eliminated, and one under which the vast economic power that inevitably resides in the financial system can be made to subserve as never before the larger interests of commerce and industry.

I. THE HISTORY OF BANKING REFORM

The shortcomings of the national banking system, as it existed before 1914, were revealed to close students of the question in almost every period of seasonal or cyclical strain upon the money markets. But reform of our banking laws was slow in developing, in part because other financial issues took precedence and in part because the defects which had been disclosed appeared in the main to be such as required amendment merely rather than thoroughgoing reorganization. The genera-

tion following the Civil War was one in which discussion of banking regulation was largely overshadowed by the agitation for greenback currency and the restoration of the free coinage of silver, the principal objection to the national banking system being the so-called "double-profit" on note issues—interest on government bonds, plus interest on the loan of the notes. These controversies related rather to the total quantity of money and to the sources of the national currency supply than to the adaptability of the banking machinery to the varying requirements of trade.

The panic of 1893 precipitated a genuine agitation for the improvement of our banking system.—The most noteworthy proposal was the "Baltimore Plan" of 1894, modeled after the Canadian system of protecting note issues by a joint guaranty fund contributed to by all banks. Before any legislation on the subject could be passed, however, there occurred the political campaign of 1896, the issue of which was once more the silver question. The success of the Republicans in this campaign was followed by the appointment of a monetary commission, composed of representatives of boards of trade, chambers of commerce, and other similar bodies, which met in Indianapolis in 1897 for the purpose of "making a thorough investigation of the monetary affairs and needs of the country in all relations and aspects, and submitting proper suggestions as to the evils found to exist and the remedies therefor." The findings of the commission were given publication, and a bill embodying the conclusions reached was presented in Congress in 1898.

The Currency Act of March 14, 1900, carried some of these recommendations into effect. In the main, however, this act was concerned with the money rather than with the banking question. On the banking side all that was attempted was a stimulation of the growth of national, as compared with state, banks by decreasing the capital requirements and by permitting the issue of notes up to the full value of the government bonds held as security. It appears that with the return of great business

prosperity the need of reforming our banking system did not seem serious to our legislators, who at best perceived none too clearly the fundamental weaknesses inherent in the system. The return of the Republicans to power, coupled with the establishment of a gold standard, undoubtedly satisfied most congressmen that henceforth financial difficulties would be unknown. Agitation for banking reform continued, however, among scientific students of the question, and there were also some congressmen, notably among whom was Charles N. Fowler, chairman of the Banking and Currency Committee of the House, who persistently endeavored to secure the passage of remedial legislation, designed primarily to insure an elastic bank-note currency based on commercial assets.

The disastrous financial panic of 1907 raised anew the agitation for banking reform, both in and out of Congress.—It was observed that whereas other countries were equally subject to periodic fluctuations of commerce and trade, the United States appeared to be the only nation in which the banking machinery was incapable of alleviating the conditions that developed in time of crisis. Strong pressure, partly political, was brought on Congress to pass some emergency legislation; and after a very brief study of the problem there was passed the Aldrich-Vreeland Act of 1908, which made possible the issue, under the control of currency associations organized around the clearing-house associations as nuclei, of bank notes secured by state and municipal bonds or by commercial paper. This act was frankly passed as an *interim* measure, to expire at the end of five years; and during this interval it was hoped a genuine reorganization of the banking system might be effected.

The Aldrich-Vreeland emergency currency performed an important service at the outbreak of the Great War.—It turned out that the Federal Reserve System, though authorized, was not in operation at the end of five years and the Aldrich-Vreeland Act was accordingly extended for a sixth year. At the eleventh hour this law received a real test; for only a few months

before the Federal Reserve System was ready for operation the outbreak of the war in Europe precipitated a sharp financial crisis in the United States. Three hundred and sixty-eight million dollars of emergency currency notes, nearly three-fifths of which were secured by commercial paper, were issued. The effect was most salutary and the expedient carried us through a genuine currency stringency which might otherwise have resulted seriously. It should be chronicled, however, that this crisis differed materially from such a one as follows a period of great industrial activity which involves a very great expansion of credit. The general business situation in 1914 had been one of relative depression.

The most significant provision of the Aldrich-Vreeland Act, however, was that which established a National Monetary Commission, composed of eighteen congressmen, which was instructed to make a thoroughgoing investigation of banking and currency reform and to frame a bill for the creation of a new and panic-proof banking system. Under the chairmanship of Senator Aldrich, this commission conducted a very extensive investigation, drawing upon the experience of the entire world. Public hearings were held in the leading financial centers of Europe; numerous experts were drafted to make special investigations on various aspects of the problem, both in the United States and abroad; and a number of books and monographs on special banking problems were reprinted and published as part of the commission's findings.[1]

Meanwhile other students of the question were also at work on plans for the reorganization of our banking system. Numerous proposals were advanced by independent students—bankers and economists—and many measures were introduced into Congress, the most important of which was one by Mr. Fowler entitled "A bill to establish a complete financial and banking system."

The Aldrich bill, resulting from the investigations of the

[1] About forty-five volumes of material were published.

monetary commission, was presented to Congress in January, 1911. In brief, this bill provided for a new banking organization modeled rather closely after the central banking systems of Europe; but because of American opposition to centralization of power, particularly financial power, and because of the unfortunate experience in our early history in connection with the Second Bank of the United States,[2] it was felt that a bill proposing the establishment of a central bank would have no chance of becoming a law. Accordingly, resort was had to camouflage and it was proposed to establish a national reserve association, with headquarters in Washington and with branches in various leading financial centers throughout the land. The Aldrich bill met with very vigorous opposition, however, and there was at no time much chance of its enactment into law. While embodying many excellent features, it also possessed certain important defects; moreover, it looked suspiciously like "un-American centralization of power," and above all it was sponsored by Senator Aldrich, who at the time was in particularly bad grace with the American people because of the part he had played in foisting upon the country the objectionable tariff law of 1909.

Currency reform shortly became the all-absorbing national issue of the time. While the Aldrich bill was before Congress, there was established a "National Citizen's League for the Promotion of a Sound Banking System."[3] This league, which was financed mainly by the banking interests of New York and Chicago—in good faith and in the hope that a really efficient banking system might be established—undertook to educate the American people on the subject of currency reform. There was published a weekly magazine called *Banking Reform,* and also a small volume with the same title, which was devoted to a discussion of the defects of the national banking system and to outlining in general terms the principles which any legislation that would correct these evils must embody. Organizations were

[2] See pp. 526–27.

[3] The Executive Secretary was Professor J. Laurence Laughlin.

formed in a great many states and speakers for the league addressed commercial clubs, bankers' associations, trade conferences, agricultural associations, public schools, etc., throughout the land. While the league was willing to see the Aldrich bill adopted, believing that most of the essential principles were incorporated, it wisely took the stand that it was not sponsoring any particular bill, that its interest was only in securing the adoption of a sound banking system. The evils to be overcome were, however, repeatedly pointed out and there was constant reiteration of the general principles which any constructive banking legislation must incorporate.

Meanwhile, the Democratic party was returned to power as a result of the political exigencies of 1912. Since the party was traditionally weak in its treatment of financial questions, and the new Congress was largely inexperienced, it was felt by many that little was now to be hoped for in the way of constructive banking legislation. There were a few distinctly good men in Congress, however, and the President very wisely seized the opportunity presented by a united party and some efficient leadership to put through a whole series of important legislative measures. The nation-wide sentiment that had been developed in favor of a sound banking system made it imperative that this problem be given primary attention. In fact, some progress had already been made before the new administration was seated. A preliminary draft of what later became the Federal Reserve Act was worked out between April, 1912, and June, 1913, under the auspices of the subcommittee of the House Banking and Currency Committee, of which Carter Glass was chairman, and, after the close of the Sixty-second Congress, under the personal direction of Mr. Glass as the prospective chairman of the Banking and Currency Committee of the incoming Democratic Congress.

The task of framing a currency law was conceived as one of modifying the Aldrich bill in such a way as to meet the fundamental objections that had been raised to that measure and to

perfect a banking organization that would provide the necessary centralization of power without vesting too much control in the hands of the "financial interests"; it was felt that a democratic spirit should pervade the organization and that it should be developed in accordance with the "genius of our institutions." The Democratic party thus reaped the fruits of the investigations that had been conducted by the National Monetary Commission and by other students of banking reform, as well as the advantage of the criticisms that had been made of the Aldrich bill; and especially it profited by the nation-wide discussion of the fundamental principles involved in banking reform. Great credit must, however, be given to the Democratic leaders for the efficient way in which the problem was handled and for the speed with which the bill was enacted into law.

The Federal Reserve Act is a substantial improvement over the Aldrich plan.—It should be chronicled here that the Federal Reserve Act is not a mere plagiarism of the Aldrich plan. In certain fundamental respects the new law is markedly different from and markedly superior to the Aldrich plan. A writer very intimately associated with the entire banking reform movement states these differences in the following language:

> The Aldrich bill provided for a single central "reserve association" with scanty public oversight, with control vested practically wholly in the banks, and with the preponderance of power in the hands of the larger institutions which owned stock. It so arranged things as to keep this "reserve association" relatively inactive except upon special occasions of panic or disturbance. It made no direct provision for the shifting of reserves in part from existing banks to the proposed associations. . . . . The new Act provides for twelve reserve banks, introduces the principle of local control, calls for strict government oversight, shifts reserves from present correspondent banks to new institutions, minimizes the influence of the larger banks in directorates, and generally diffuses control instead of centralizing it. It leaves banking as such to be practiced by bankers; it vests the control of banking in the hands of government officers. The theory and purpose of the new Act are widely different from those of the Aldrich bill.[4]

[4] H. Parker Willis, *The Federal Reserve*, p. 68.

Subject to a great deal of hostile comment by the financial and business press during the period of its discussion before Congress, after passage the law very quickly became recognized at its true worth as the most constructive piece of legislation that had ever been placed upon the American statute-books. For once, at least, a vitally important, though technical, question had been resolved into its fundamental issues through public discussion, and in this instance a measure emerging into law did represent the best constructive thinking of the nation.

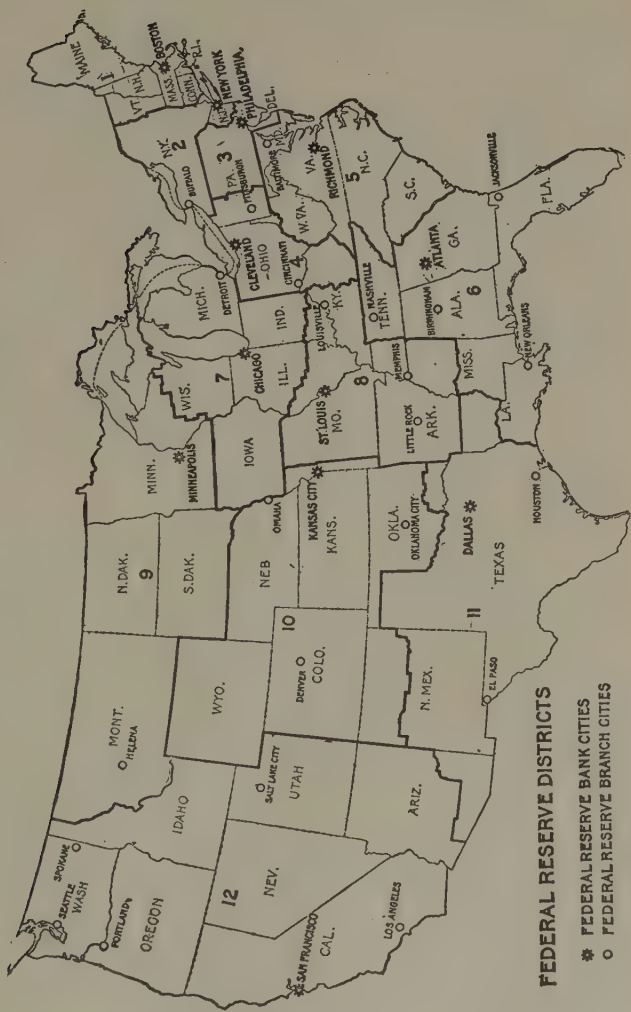
II. ADMINISTRATIVE FRAMEWORK OF THE SYSTEM

The Federal Reserve Act divides the United States into twelve districts, chosen in the light of commercial rather than geographical factors. The map on page 551 shows the boundaries of the twelve districts and the cities in which are located the Federal Reserve banks which constitute the units of the system; while the data given below show the number of banks in each Reserve district and the paid-in capital and surplus of each Reserve bank in 1925.

SIZE OF FEDERAL RESERVE DISTRICTS

District	Number of Member Banks	Capital of Federal Reserve Bank	Surplus of Federal Reserve Bank
		(000 omitted)	(000 omitted)
Boston	420	8,050	16,382
New York	857	31,345	58,749
Philadelphia	740	11,150	20,059
Cleveland	869	12,956	22,462
Richmond	608	5,970	11,701
Atlanta	505	4,613	8,950
Chicago	1,407	15,535	30,426
St. Louis	624	5,104	9,971
Minneapolis	872	3,252	7,497
Kansas City	1,056	4,337	8,977
Dallas	824	4,212	7,592
San Francisco	749	8,169	15,071
Total	9,531	114,693	217,837

FEDERAL RESERVE DISTRICTS



The capital of the Federal Reserve banks was subscribed by the member banks of each district, each bank subscribing a sum equal to 6 per cent of its own paid-up capital stock and surplus. One-half of the subscription, or 3 per cent, has actually been paid in by the member banks, the remaining 3 per cent being subject to call. In view of the present financial situation, it is doubtful whether the member banks will ever be called upon to pay the remainder of their subscriptions. Capital contributions were compulsory for the national banks that joined the system, but it was optional with each bank whether or not it should join. Only in one sense was there any compulsion; a national bank had to join the system if it remained a national bank; but it could surrender its charter as a national institution if it so desired and either take out a state charter or suspend operations. Nearly all of the national banks, in fact, shortly joined the system; and, as we shall later see, a large number of state banks have since become members.

The Federal Reserve banks are managed by boards of directors, democratically chosen, and representing all classes of interest.—To make certain that the Federal Reserve directors shall represent all classes of opinion and interest, the law provides that one-third of the board of nine members shall be known as Class A, one-third as Class B, and one-third as Class C directors. The Class A directors are chosen by and are representative of the stockholding member banks. The Class B directors must consist of individuals who at the time of their election are actively engaged in their district in some commercial, agricultural, or industrial pursuit. The Class C directors are selected by the Federal Reserve Board, which is in effect the representative of the United States government, and hence of all the people. One of these directors is called the Federal Reserve Agent and is the personal representative of the Federal Reserve Board. Although the directors are thus chosen from among many different interests, as directors they must act as a unit and in the interests of the general financial welfare, as they see it.

Two of the members of the board belonging to Class C, however, act in a dual capacity. The Federal Reserve Agent and deputy Federal Reserve Agent are also representatives of the Federal Reserve Board and have certain special duties to perform in this capacity.[5]

In still another way the act has endeavored to secure a democratic organization and control. To insure against the domination of the board of directors by the larger and more powerful banks, the law provides that the banks shall be divided into three general groups, each group to contain roughly one-third of the aggregate number of member banks of similar capitalization. Thus group No. 1 would contain approximately one-third of the total number of banks in the district, consisting of banks of the largest capitalization; group No. 3 would include the smallest banks of the district; and group No. 2 the banks in between. Each of these groups of banks nominates and elects one Class A and one Class B director. The directors thus represent not only the stockholding banks, but also the different classes of banks.

Several of the Federal Reserve banks have branches which operate in different parts of the districts, each branch usually having a portion of the district assigned to it. At present twenty-three branches and one domestic agency are in operation. In addition, two agencies have been established in Cuba, one by the Federal Reserve Bank of Atlanta and one by the Federal Reserve Bank of Boston.

The Federal Reserve Board is the co-ordinating and controlling agency of the system as a whole.—This board, which is organized as a part of the Treasury Department, is made up of eight members, of whom two are members ex officio—the Secretary of the Treasury and the Controller of the Currency. The other six members are appointed by the president by and with the advice and consent of the Senate. It is provided that not more than one member of the board may come from a single

[5] See p. 557.

reserve district; and that at least two of the presidential appointees must have had banking or financial experience. No member of the board, however, may be an officer, director, or stockholder of any bank. The term of office is ten years; and the board is a perpetual body in that not all of the members retire at any one time. Thus during a given presidential administration not more than three of the six members could owe their appointment to the president then in office. The president is empowered to name one of the six members of the board as governor and another as vice-governor, and these are the chief executive officers of the entire system.

The Federal Reserve Board is assisted in its deliberations by a Federal Advisory Council which consists of one representative from each Federal Reserve district chosen by the board of directors of the Federal Reserve bank of the district. This council meets quarterly in Washington and at such other times and places as it may choose. Its function is purely consultative; it is designed to keep the Federal Reserve Board closely in touch with business and financial conditions in all parts of the country.

The powers and duties of the Federal Reserve Board in brief are as follows: It may suspend or remove any officer or director of a Federal Reserve bank; it may suspend a Federal Reserve bank and take charge of it for the purpose of reorganization or liquidation; it may readjust or abolish altogether the classification of central reserve and reserve cities. It also has power, as we shall later see, to raise or lower interest rates, to give preference to certain types of financial operations, and in various ways to modify and influence financial conditions. For the moment, however, we are not concerned with the details of the Federal Reserve Board's operations, the present purpose being merely to show the general relation of the board to the system and to note that it is a co-ordinating and controlling agency, in ways which will be discussed below.

III. PROVISION OF AN ELASTIC BANK-NOTE CURRENCY

Among the defects to be remedied by the new banking system was the inelasticity of the bond-secured bank-note currency. The Federal Reserve Act has met this problem, not by a complete elimination of the bond-secured notes, but by the creation of an additional form of note currency—one secured by commercial paper, or "assets." Indeed, as a result of this law we now have three types of bank notes in the United States: (1) national bank notes secured by government bonds (as before); (2) Federal Reserve bank notes (secured by government bonds); (3) Federal Reserve notes (secured by commercial paper).[6] The third is the distinctly new form of currency and the one which is designed to give elasticity to the bank note system.

1. *National bank notes.*—During the period when the Federal Reserve bill was before Congress it was suggested that the national bank notes be entirely eliminated. It was found difficult to accomplish this, however, without involving heavy losses to the banks which had outstanding bond-secured currency. The 2 per cent government bonds, which were chiefly used as security for the national bank notes, had a market value substantially equal to the par value only by virtue of the fact that they carried the circulation privilege. Taking away from the bonds this privilege would have meant a fall in their value of approximately one-third; and for the national banks as a whole this would have involved a loss of over $200,000,000. The opposition of the banks to the proposal to withdraw the circulation privilege from the 2 per cent government bonds was so vigorous that it was deemed expedient to adopt some other means of securing the ends desired.

A plan was finally worked out whereby a gradual retirement of the national bank notes could be effected. It was provided that any member bank which desired to retire any or all of its

[6] But see p. 563 for qualifications of this statement.

circulating notes might, through the intermediation of the United States Treasury, sell to a Federal Reserve bank at par the bonds which were serving as security. Under this plan the funds paid over to the Treasury by the Federal Reserve bank which purchases the bonds are used to redeem the outstanding national bank notes that have been secured in the past by these bonds. Any balance that may be left is turned over to the bank in question.

The law sets a limit on the amount of these bonds that may be purchased by a reserve bank in any one year; and if every bank should take advantage of its option to retire notes, it would require about thirty years to retire the total amount outstanding in 1914. The truth of the matter is that some banks have seen fit to retire their national bank notes by this process, while others have not. The total quantity of national bank notes outstanding on June 1, 1925, was $696,648,498, as compared with $756,944,194 on December 1, 1913. Since the retirement of the notes by member banks is not mandatory, it is altogether probable that we shall continue to have a large volume of such notes as a permanent part of our circulating medium.

2. *Federal Reserve bank notes.*—These notes owe their origin to the effort to provide for the retirement of the national bank notes. Although all the Federal Reserve bank notes are alike in form and in security, they originate in two ways: first, the reserve bank, which has purchased government bonds from a member bank which is retiring its notes (as outlined above), may deposit these in trust with the Treasurer of the United States and receive an amount of circulating notes equal to the par value of the bonds thus deposited. This amounts merely to transferring the issuing of bond-secured notes from the individual national banks to the Federal Reserve banks. Second, the reserve banks are authorized to issue additional notes upon the security of additional bonds, on the same general terms that national banks formerly issued such notes, except that the total amount is not limited to the amount of the capital stock of the

Federal Reserve bank issuing them. On June 1, 1925, the total volume of Federal Reserve bank notes outstanding was only $7,109,376.

It remains to be noted that the way is open for a gradual retirement of these Federal Reserve bond-secured notes. It is provided that if any reserve bank desires to retire outstanding bond-secured notes, the bonds which serve as security may be exchanged at the United States Treasury for one-year 3 per cent gold notes of the United States, which do not carry the circulation privilege, "to an amount not exceeding one-half of the 2 per cent bonds so tendered for exchange; and for thirty-year 3 per cent gold bonds, without the circulation privilege, for the remainder of the 2 per cent bonds so tendered." As interest rates stood in 1913 this process would have enabled the Federal Reserve banks to get rid of their bond-secured notes without loss. The additional 1 per cent interest charge would of course fall, immediately speaking, upon the government, and ultimately upon the tax-paying public. The volume of Federal Reserve bank notes now outstanding is small as compared with the volume of such notes in circulation in 1920, but the decline is apparently due to the retirement of treasury certificates of indebtedness, which were also used in limited amounts as security for Federal Reserve bank notes during the war period.

3. *Federal Reserve notes.*—The process by which the Federal Reserve notes which are designed to provide the elastic element in our bank-note system are issued, and the regulations governing them, can best be shown by a concrete illustration. Let us assume that there is a heavy demand for additional bank-note currency with which to move the crops in some rural community and that some of this demand is manifested at the First National Bank of Ottumwa, Iowa. How can this bank expand the volume of Federal Reserve note issues?

It is provided by the Federal Reserve law that a bank desiring to issue reserve notes may do so upon the security of commercial paper rediscounted with the Federal Reserve bank of its

district. Accordingly, the Ottumwa bank indorses over to the Federal Reserve Bank of Chicago, say, a $10,000 promissory note of one of its customers, Mr. Jones, to whom a commercial loan has been made. The reserve bank of Chicago will give the Ottumwa bank Federal Reserve notes equal to the face value of Jones's note less the interest for the time which it has yet to run. The term "rediscounting" is used in this connection to indicate that a note which was originally discounted by a member bank is now discounted a second time. In a word, the Federal Reserve bank thus does for the member bank precisely what the member bank does for its customers—advances the face value of the note, less interest until maturity.

Before the notes can be issued by the Federal Reserve bank, however, the promissory note that has been received (or other notes of like quality and amount) must be placed in the custody of the Federal Reserve Agent of the Chicago Federal Reserve bank, who, it will be recalled, is the representative of the federal government on the directorate of the Federal Reserve bank. This agent has in his possession Federal Reserve notes that have been printed in advance; and upon receipt of the commercial paper he turns over to the Federal Reserve bank the quantity of notes demanded. The Federal Reserve bank then sends these notes to the Ottumwa bank, which is thereupon in a position to lend them to the individuals who are in need of seasonal funds.

It will make for clearness if we consider the changes that would occur as a result of this operation on the balance sheet of the Ottumwa bank and the Federal Reserve Bank of Chicago respectively. When the Ottumwa bank sends its customer's note to Chicago, its "Loans and discounts" are lessened by the amount of the note. The "Federal Reserve notes" received in exchange for the customer's note are carried as assets of the Ottumwa bank until such time as they are loaned to a customer, when "Federal Reserve notes" are decreased and "Loans and discounts" are increased by a like amount. As for the Federal

Reserve bank, the rediscount has given it possession of a customer's note, which is carried as an asset under "Rediscounts." The "Federal Reserve notes" issued against the security of this commercial paper of course become liabilities of the Federal Reserve bank.

Thus we have secured an expansion of bank notes. It may be noted, moreover, that the new loan which the Ottumwa bank now makes gives rise to a new customer's note, which, if it has resulted from an ordinary commercial operation, is also available for rediscount with the Federal Reserve bank of Chicago, and thus may also be used as a basis for still further issues of Federal Reserve notes. Thus as long as there continue to be commercial transactions which require the use of borrowed funds, the promissory notes arising out of these transactions will provide the basis for the additional currency required in financing them. Here is the same sort of expansibility that we have elsewhere found to characterize deposit currency.

It remains to consider the process by means of which Federal Reserve notes, thus issued, are reduced in volume when the need for them is past. For the purpose of illustration, let us consider the specific $10,000 of Federal Reserve notes that were put in circulation by the Ottumwa bank. The individual who borrowed these notes uses them in meeting his obligations, and the individuals who receive them either deposit them directly in banks or use them in the payment of debts to traders and others, who in turn send them to their banks for deposit. They are now out of the channels of circulation; but they have not been returned to the Federal Reserve Bank of Chicago. What insures their return to their source?

We have seen that the Ottumwa bank secured funds from the Federal Reserve Bank of Chicago by the rediscount of a promissory note of Mr. Jones, one of its customers. At the maturity of this note, it will be sent to Mr. Jones for payment, by way of the First National Bank of Ottumwa. Jones will pay the necessary funds over to the Ottumwa bank in whatever way is

most convenient for him. And, similarly, the Ottumwa bank will pay the Federal Reserve bank in whatever way is most convenient. Now the most convenient and least costly way for the Ottumwa bank to remit, is, in fact, by sending in any paper money, including Federal Reserve notes, which it has on hand. From this paper money, and other paper money sent in by other banks, the Chicago Reserve bank can sort out and retire the Federal Reserve notes. The Federal Reserve bank is, in fact, constantly receiving and paying out paper money, and the process of selecting notes to be retired is a simple matter. Since the national banks are not permitted by law to keep any of their legal reserve in their own vaults, they will always send their cash, above that needed for till money, to the Reserve bank of their district for deposit or in payment of loans.

Suppose, now, that some of the notes issued through the Ottumwa bank should find their way into a national bank in Oskaloosa, Iowa. Will they then be returned to the Chicago bank for collection? The answer is that they will, for the reason that whenever it has occasion to make payments to the Federal Reserve Bank of Chicago (and such occasions are constantly arising) the Oskaloosa, like the Ottumwa bank, will use paper money, including Federal Reserve notes, for the purpose. It does not matter, therefore, what bank in the district receives the notes; they will always be sent in payment of obligations to the bank which issued them.

It is possible, however, that some of the notes that have been put into circulation in Ottumwa, Iowa, might find their way into banks in other than the Seventh Federal Reserve district. Concretely, let us suppose that some of them are sent in payment of obligations to the First National Bank of Akron, Ohio. Will they now be returned to the Federal Reserve Bank of Chicago for redemption? They will not, in fact, be sent directly to Chicago, for the Akron bank has no direct relations with the Chicago reserve institution. The Akron bank will, however, send these notes to the Federal Reserve Bank of Cleve-

land, whenever it has payments to make there. When these notes arrive at the Cleveland Federal Reserve Bank, they may be listed as assets of that bank; for they are liabilities only of the particular reserve bank which issued them. What, now, is to prevent the Federal Reserve Bank of Cleveland from again putting these notes into circulation and thereby preventing their redemption at the source of issue?

A simple provision is incorporated in the law which insures their being sent to the Federal Reserve bank which issued them. It is provided that any Federal Reserve bank which pays out notes of other reserve banks shall be subject to a tax of 10 per cent of the value of the notes thus paid out. Since this destroys the profit that might be obtained from lending these notes, it insures their presentation to the Reserve bank which issued them, in payment of obligations due or in exchange for specie.

Federal Reserve notes are not based exclusively on commercial paper.—In the foregoing illustration of the elasticity of Federal Reserve notes we have been given the impression that these notes are secured exclusively by commercial paper. Such is not, however, strictly the case, although the theory of the law was undoubtedly to make such paper the fundamental basis of the elastic note currency. Specifically, the law, as amended, makes possible the issue of Federal Reserve notes on the following kinds of security: (1) paper indorsed by member banks and drawn for strictly commercial, industrial, and agricultural purposes, or for the purpose of carrying or trading in securities of the United States government; (2) bills of exchange indorsed by a member bank and bankers' acceptances bought by the Federal Reserve bank in the open market; (3) gold and gold certificates. Since the provisions governing paper that is eligible as security for note issues are in the main identical with those governing paper that is eligible for rediscount in general, it is important that we consider carefully at this place the significance of these provisions from the standpoint of commercial banking theory.

1. It will be observed, first, that the provision relating to the eligibility of paper as security for note issues reads "drawn for commercial, industrial, and agricultural" purposes. Thus the ordinary narrow technical definition of "commercial," as involving merely the purchase and sale of goods by middlemen, is abandoned; it is recognized that commercial banking has to do with industry and agriculture as well as with commerce.[7]

While great emphasis is placed upon the essential liquidity of paper growing out of actually completed business transactions, the law nevertheless recognizes that paper may be *eligible*, even though it does not represent a *completed* transaction; for it defines *eligible* paper to include cases where the proceeds of the loan have been used or "are to be used" for the purposes specified in the act. Thus the law recognizes the common practice of making loans on single-name promissory notes to concerns which are in a liquid condition—that is, with a satisfactory excess of liquid assets over current liabilities—as legitimate commercial banking. Eligible paper, therefore, need not be secured by a specific stock of goods; it may be secured by the net liquid assets of a business as a whole.

While the law thus recognizes the current banking practice of lending on the basis of the general standing of the borrower, as discussed on pages 358–65—it does not recognize the practice of *annual* liquidation of the borrower's indebtedness; that is, the practice of completely paying one's debts to the bank only once a year. Paper to be eligible for rediscount or as security for note issues may have a maturity of not more than ninety days, except in the case of agricultural and live-stock loans, where a concession from the short-time principle is made by permitting for a limited amount of paper a maturity not exceeding nine months. The agricultural and live-stock paper may not, however, serve as security for note issues if it has a maturity of more than six months. The limit to the amount of such paper is to be fixed by the Federal Reserve Board at some

[7] Cf. this with the discussion of commercial paper in chap. xx, p. 413

definite percentage of the assets of the Federal Reserve bank discounting such paper.

In the second place, it is to be noted that paper is eligible as security for note issues when it is used for the purpose of carrying or trading in the securities of the United States government.[8] This provision, as we shall later see, was utilized in striking fashion in connection with the floating of Liberty Loans during the war.[9] While the law therefore permits long-time government paper to be used as security for note issues, it nevertheless excludes paper drawn for the purpose of carrying or trading in stocks, bonds, and other investment securities, in the belief that such operations are subversive of sound principles of commercial banking, that they do not insure the necessary liquidity of assets.

2. The second class of paper available as security for note issues, namely, bills of exchange indorsed by member banks, and bankers' acceptances bought in the open market, are of course essentially short-time commercial credit instruments representing ordinary commercial, industrial, or agricultural transactions.

3. The authorization of gold and gold certificates as collateral for Federal Reserve notes has opened the way to a very interesting development. When notes have once been issued on the security of commercial paper, it is not, in fact, necessary upon the maturity of the commercial paper which is being held as security by the Federal Reserve Agent, that a like volume of Federal Reserve notes should be retired or else a like volume of new commercial paper be turned over to the Federal Reserve Agent; for the notes may be kept in circulation provided the Federal Reserve bank turns over to the Federal Reserve Agent a like volume of gold or gold certificates. During the war period, in an endeavor to concentrate the gold supplies of the country in the central reservoirs provided by the Federal Reserve banks, the Federal Reserve Board adopted a deliberate policy of ex-

[8] Cf. p. 569. [9] See pp. 602–3.

changing Federal Reserve notes for gold and gold certificates, the Federal Reserve notes thereby finding a wide use in the channels of circulation in place of the gold and gold certificates which they displaced.

The issue of Federal Reserve notes in exchange for gold and gold certificates gave to the Federal Reserve banks a greatly increased power of note and credit expansion. For on the basis of the gold secured by this process, a Federal Reserve bank could issue notes to two and one-half times the volume of gold on hand (the reserve required against notes being 40 per cent), and nearly three times the volume of deposit currency (the reserve required against deposits being 35 per cent). It should be understood, in this connection, that the gold and gold certificates exchanged for Federal Reserve notes and held by the Federal Reserve Agent still count as reserves against outstanding notes.

This policy of concentrating the gold supply of the country in the Federal Reserve banks in order to make it available for a larger superstructure of credit than would be possible if it remained widely scattered in the vaults of individual banks, in the cash tills of a multitude of business enterprises, and in the pockets of innumerable individuals was largely dictated by a consideration of the enormous financial requirements of the war. With our gold resources thus effectively mobilized, it was believed, not without good reason, that we should be able to meet almost any financial demands that might be imposed upon us.

Since 1921, however, the gold reserves of the Federal Reserve banks have been much larger than the business situation required. As a means of reducing the "menace" of excessive reserves, the Federal Reserve notes are now being retired and gold certificates issued to take their place in the channels of circulation.

Federal Reserve notes are adequately secured.—In the effort to give Federal Reserve notes an elastic quality, the question of safety has not been overlooked. Let us see what is the

nature of the security back of these notes. In the example given above, Mr. Jones had given his promissory note to the Ottumwa bank. Now the Ottumwa bank had extended the credit to Jones on the strength of his business integrity and ability and his general financial standing. There is thus, first, a property security, presumably ample to insure the payment of the loan by Jones. In the second place, there is additional security in that the Ottumwa bank, when rediscounting Jones's note, indorses it and thus becomes secondarily liable for its payment. In the third place, the Federal Reserve notes are the liability of the Federal Reserve bank which issues them; and as such they have a prior lien upon all of the bank's assets. Moreover, the law requires that for every $100 of Federal Reserve notes issued, the Federal Reserve bank must hold a reserve of at least $40 in gold. There is, finally, a double liability of the stockholders of the Federal Reserve banks; and since the stockholders of these institutions are none other than all of the member banks of the district, it will be seen that so long as the banking system as a whole does not crumble to pieces, Federal Reserve notes will not fail of redemption.

As a last resort, however—it is said this provision was incorporated to please Mr. Bryan, who insisted that the Federal Reserve currency must be equivalent to government currency—the Federal Reserve notes are the direct obligation of the United States government. Thus ultimately all the taxable resources of the nation are back of them.

One qualification of the foregoing statements is necessary, however. The Federal Reserve notes that arise from deposits of gold and gold certificates with the Federal Reserve Agent are not secured by specific commercial paper. Offhand, these notes might appear to be backed by a gold reserve of 100 per cent; but since the gold that is deposited in exchange for them is also counted as reserve against notes that have been issued on the security of commercial paper, such is not in reality the case.

Notes issued by the Federal Reserve banks are not legal ten-

der in the United States.—Neither Federal Reserve bank notes nor Federal Reserve notes have been given legal tender power in the settlement of private obligations—resembling the national bank notes issued by member banks in this respect. Owing to the provisions regarding their acceptability and redeemability, however, this failure to make them legal tender in no way tends to impair their serviceability as media of exchange. The Federal Reserve notes are, curiously enough, legal tender in Cuba.

The Federal Reserve bank notes are a direct obligation of the Federal Reserve bank which issues them. They are redeemable at the United States Treasury and receivable for all practical purposes by all national banks and Federal Reserve institutions as well as by the United States government.[10]

The Federal Reserve notes are redeemable in gold coin on demand at the United States Treasury, from a 5 per cent redemption fund provided for the purpose, and at any Federal Reserve bank. They are receivable at par by all national and other member banks, by Federal Reserve banks, and for all taxes and customs and other public dues.

IV. THE CONTROL OF CREDIT

A fundamental weakness of our national banking system, as we have seen, was the lack of any adequate machinery for the control of credit, or deposit currency, and hence for the control of business in general. In times of seasonal strain trade was sometimes halted for want of an elastic deposit currency; in years of great industrial activity there was no effective means of restraining business commitments and preventing thereby the development of conditions of acute crisis; and when the crisis arrived, there was little chance of escaping a panic for the reason that the credit structure was rigid and inelastic. The problem of credit control, therefore, divides itself into three parts: (1) providing the requisite amount of funds for seasonal business

[10] The provisions here are exactly the same as with the national bank notes; see p. 352.

requirements; (2) checking expansion of currency during the upward swing of the business cycle, at the beginning of a critical business situation; and (3) expanding loans in time of acute crisis in order to tide the business world over the period of tension. The Federal Reserve Act has attempted to provide the means of meeting all of these requirements.

The control of credit under the Federal Reserve System has been made possible largely by means of what is commonly termed "the mobilization of the reserves" of the banking system. This mobilization of reserves has been effected in a variety of ways. It was of course necessary, first, to divert a considerable portion of our monetary supply from the individual banks to the Federal Reserve institutions. This was accomplished in part by requiring each member bank to subscribe to the capital stock of the Federal Reserve bank of its district; in part by requiring the member banks to keep their lawful reserves with the Federal Reserve institutions;[11] and in part by exchanging Federal Reserve notes for gold and gold certificates, as outlined in the discussion of notes in the section above. Some government deposits are also made with the Federal Reserve banks.

The use of our monetary supply has been economized.—This great concentration of reserves, together with the provisions for their effective use which we are presently to consider, have effected in the first place a great economy of funds, and made possible a great expansion in the total quantity of both notes and deposit currency. The original act permitted a reduction in the reserve of member banks from 25 to 18 per cent in the central reserve cities, from 25 to 15 per cent in the reserve cities, and from 15 to 12 per cent in the country banks. But after the great concentration of reserves that was accomplished during the war by means of substituting Federal Reserve notes for gold and gold certificates, these requirements were still further reduced—to 13, 10, and 7 per cent against demand deposits in

[11] The original law required only part of the reserve to be so kept, but it was amended later to include the entire minimum reserve.

banks in central reserve cities, reserve cities, and country towns, respectively; and in each class of banks 3 per cent was required against time deposits. It should be observed, however, that since it was required that these minimum reserves should be kept entirely in the vaults of the Federal Reserve institutions, money for till money purposes constituted an addition to these minimum reserve requirements.

Whether or not this economizing of reserves constitutes a real gain depends upon the use to which the additional credit thus made available is put. There was a tendency among writers on the Federal Reserve System at the time of the passage of the law and in the early days of the system's operation to attach very great significance to this conservation of funds; but it is now frequently argued that the great expansion of credit that it has made possible is largely responsible for the very great rise in prices that has occurred since the outbreak of the world-war. However this may be—and it is a highly controversial issue—there is substantial agreement that the chief significance of the concentration of reserves in the Federal Reserve institution is its relation to an effective control of credit in the various ways suggested above. We may therefore now turn to a consideration of the machinery of credit control that has been evolved.

1. *Providing the requisite amount of funds for seasonal business requirements.*—We found in the preceding chapter that in times of great seasonal activity the volume of bank reserves is not always sufficient to permit an expansion of bank loans and thus of deposit currency. Under the Federal Reserve System, however, it is always possible for an individual bank in need of funds to secure them from the Federal Reserve bank of its district by the rediscount of commercial paper (but see the next paragraph). We have already seen that such rediscounts may be made the basis for an issue of Federal Reserve notes; but in the present case, instead of taking notes, which are not available as reserve, the member bank receives a deposit account with the Federal Reserve bank which counts as cash

in hand, and this serves as a basis on which additional loans may be made. So long, therefore, as member banks have paper eligible for rediscount and so long as the Federal Reserve banks maintain adequate lending power through keeping large reserves, there can never be any possibility that the supply of deposit currency will prove inadequate for seasonal needs.

Collateral loans to member banks are also authorized.—Under the original law the Federal Reserve banks could extend credit to member institutions only through the process of rediscounting notes, drafts, bills of exchange, etc., bearing the indorsement of a member bank. It was soon found, however, that there were many occasions when member banks would find it necessary to borrow from Federal Reserve banks for very brief periods of time, in fact so brief that it was inconvenient to rediscount customers' paper for the purpose. An amendment to the act which authorized the Federal Reserve banks to make short-time loans to member institutions on the basis of collateral security was, therefore, passed on September 7, 1916. The collateral may consist of notes, drafts, bills of exchange, or bankers' acceptances that are eligible for rediscount, or of bonds or notes of the United States. This provision has been extensively utilized; in fact, during the war by far the largest percentage of the credit extended by the Federal Reserve banks to member institutions was made on the basis of collateral, consisting mainly of government securities, commonly referred to as "war paper."[12]

Whereas before the passage of the Federal Reserve Act the power of each bank to expand its deposit currency depended upon the possession of unused reserves and upon its ability to secure accommodations from other banks, now no bank can fail to meet the demands for funds in its community merely in consequence of the exhaustion of its individual reserves or because of its inability to secure assistance from some correspondent

[12] See pp. 602–3.

bank. The central reservoir of credit that exists in the Federal Reserve banks makes it possible for every bank to provide the necessary loan expansion regardless of its particular condition. The weak links in the banking chain are thus immeasurably strengthened and the supply of credit is made responsive to seasonal requirements.

Moreover, as soon as the seasonal strain is passed such deposit currency automatically contracts; for when the loans which were procured in order to finance the seasonal requirements are paid, checks are drawn against deposit accounts in favor first of the member banks and then of the Federal Reserve institutions, thereby reducing the volume of outstanding deposit accounts. Such deposits will, moreover, not reappear until there is a new demand for funds to be used in connection with new business transactions.

2. *Checking expansion of currency during the upward swing of the business cycle at the beginning of a critical business situation.*—This aspect of the problem of credit control involves a somewhat different mechanism. When the first signs of stress and strain appear within the system, when it becomes clear that further expansion will carry in its train an inevitable credit collapse, it is believed that the brakes may be applied to industry in such a way as to cause a gradual rather than a precipitate readjustment of business conditions. Concretely, the instrumentality by means of which the business cycle is to be controlled is the interest rate. So long as we had an independent banking system, with each bank acting largely on its own initiative, it was impossible to secure any concerted action in the control of the discount rate, that is, in raising the rate as a means of checking business expansion, for the reason that it would not appear to the interest of all of the banks to raise interest rates and thereby lessen loans. Moreover, an agreement, if adopted, would probably raise the charge that the bankers were attempting to profiteer at the expense of business generally. Under the Federal Reserve System, however, a quick raising of interest rates may

be effected through the action of the Federal Reserve Board, which cannot fairly be criticized as attempting to serve profit-making ends of its own.

The means by which the Federal Reserve Board may secure a general increase in the interest rates is very simple. The board is given the power of fixing the rates at which the Federal Reserve institutions make loans to member banks, as also the rates which they shall pay when lending funds in the general market through the purchase of acceptances, etc. At a time when all member banks are finding it necessary to borrow from Federal Reserve banks funds with which to meet their customers' demands, a raising of the rates at which they borrow, promptly results in the raising of discount rates by member banks to their customers.

The result of this raising of interest rates is to make the conduct of business more costly, to narrow the margins of profit, and hence to apply the brakes to further industrial expansion and bring about a gradual readjustment. In a word, it is believed that the Federal Reserve Board, acting on an understanding of the phenomena of the business cycle, could through the instrumentality thus placed in its hands exercise an effective control over general business. If successful, such a policy would mean that the last stage in the upward swing of the business cycle would be eliminated, and with it of course the beneficent results of such a period of very active business. But on the other hand, it would prevent a financial collapse such as occurred in the past when business was allowed to continue its rapid expansion to the ultimate breaking-point, that is, to the point of complete exhaustion of the bank reserves; and it would bring about a business readjustment more gradual in its nature and hence involving less serious results to both capital and labor than would be the case if the upward swing were allowed to continue for a longer period, even though an ultimate financial panic might still be avoided.[18]

[18] For a consideration of a practical test of this method of controlling business expansion, see the chapter which follows, pp. 606–15.

3. *Expanding loans in a period of acute crisis.*—In the event that the attempt to control business expansion and to bring about a gradual readjustment by raising the discount rates should prove ineffective and business should continue to expand until the stage of acute crisis is reached, it is still within the power of the Federal Reserve System to avoid the fourth stage of the business cycle, namely, the suspension of specie payments and the collapse of the entire credit structure, accompanied by financial panic. We have seen in the preceding chapter that in time of acute crisis the outstanding need is for an increase in bank reserves and an expansion of loans. The Federal Reserve System is designed to meet this need.

Under the terms of the law it was provided, as we have already seen, that the member banks should contribute to the capital stock of the Federal Reserve insitutions; and they must also keep their reserves on deposit with the Reserve banks. These banks thus become central reservoirs of cash, the final repositaries of the commercial banking system. Upon them we have placed the responsibility of maintaining reserves adequate for all emergencies. While, as we have already seen, the law prescribed relatively large minima, it was deemed necessary as a matter of policy for the Federal Reserve banks to maintain in ordinary times reserves greatly in excess of these figures in order that in case of emergency there might be available a practically "unlimited amount" of lending power. It will be recalled that before the establishment of the Federal Reserve System, our decentralized system of banking led each individual bank to expand its loans in time of active business practically to the reserve limits; there could be no concerted action whereby funds might be set aside for emergency use only. A policy of providing funds for emergencies is, however, the very essence of the Federal Reserve System.

To understand clearly the amount of expansion that is possible in time of emergency and the way in which it is practically worked out, it will be necessary for us again to consider some

actual transactions. Suppose in time of crisis the First National Bank of Chicago has a demand from its customers for additional loans. While its reserve is down to the minimum, it may make the additional loans by first taking, say, $100,000 of its customers' notes to the Federal Reserve Bank of Chicago for rediscount. The result of this is to lessen the loans of the First National Bank of Chicago by $100,000 and to increase its cash reserve—in the form of a deposit account in the Federal Reserve bank—by $100,000, less, of course, the amount of the interest deducted by the Federal Reserve bank. On the basis of this new reserve the First National Bank can now make additional loans to the extent of over $700,000 and create new deposit accounts to a like amount.[14]

It will be clear at once that so great an expansion of lending power as here suggested would be adequate to meet any except the most extraordinary credit demands. But in case still further demands for funds are manifested, the First National Bank could take the $700,000 of new promissory notes that have come into its possession as a result of its additional loans, and rediscount them with the Federal Reserve Bank of Chicago, thereby acquiring additional deposits in the Federal Reserve bank, which are available as a reserve basis for still further loans. So long as there is eligible paper for rediscount and so long as there are reserves in the Federal Reserve banks above the minima prescribed by law, there is no limit to the expansion of credit that can be made.

The system of rediscounting strengthens the weak lines in the banking chain.—Indeed, it appears that under this system the essentially weak links in the banking system are eliminated. essentially weak links in the banking system are eliminated. Any bank within the First Federal Reserve District, for instance, can secure loans with which to meet the demands of its constituency regardless of its own condition so long as there is

[14] This figure is possible because the law requires a reserve of only 13 per cent for national banks in central reserve cities.

money in the central reservoir at the Federal Reserve bank. Rather than a scramble for reserves and a working at cross-purposes, as was the case before 1914, there is here definite machinery for co-operative action in meeting credit strains wherever they may appear.

Not only may the banks of District No. 1 continue to secure accommodation from the Federal Reserve bank of that district so long as its reserve is not exhausted, but the Federal Reserve Board may require the Federal Reserve bank of District No. 2 to extend loans to the Federal Reserve bank of District No. 1. Thus a process of credit expansion can continue and relief can be given to individual banks, and through them to business concerns, until the average reserve of all the Federal Reserve banks has been drawn down to the minimum. Thus not only is there no weak link within a district; there is also no weak district within the Federal Reserve System as a whole. Each is as strong as any other.

Finally, the reserve requirements are not irreducible minima.—The law makes it possible, in case of acute emergency, to cut below the 35 and 40 per cent reserve requirements against deposits and Federal Reserve notes, respectively. The Federal Reserve Board may suspend for a period not exceeding thirty days, and from time to time may renew such suspension for a period not exceeding fifteen days, these reserve requirements, provided it establishes a graduated tax upon the amounts by which the reserves of the banks fall below the 35 and 40 per cent requirements. The rate of progression of the tax for the deficiency of the reserves against *notes* is provided by the act, though there is no such provision for *deposits*. The tax upon a deficiency in the reserve against notes is not more than 1 per cent per annum until the reserve falls to 32½ per cent, and 1½ per cent per annum upon each additional 2½ per cent of deficiency or fraction thereof. Thus if the reserve against note issues should fall to 30 per cent there would be a tax of 2½ per cent; if it fell to 29 per cent the tax would be 4 per cent; and if it fell be-

low 27½ per cent the tax would be 5½ per cent. The tax schedule for deposits is left to the discretion of the Federal Reserve Board.

It will be seen that there is no ultimate limit to the deficiency in the reserves other than zero. Whether a decline of the reserves far below the legal minima could be continued without a loss of confidence leading to the familiar hoarding of currency and ultimate collapse of the credit structure is, however, open to some question.[15] It will be seen, however, that these provisions do insure a very high degree of credit flexibility.

Control of the interest rate is also of aid in time of crisis.—It remains to observe that manipulation of the interest rate may be of assistance in time of acute crisis, as well as during the earlier stages of the credit strain. In case of a failure to raise the interest rate before the stage of acute crisis has been reached, or in the event that such increase as has been made has not sufficiently applied the brakes to industry, and prevented the development of acute tension, the use of this instrumentality of credit control will still be of genuine service, in two ways.

First, the raising of the interest rate performs an important negative function in discouraging all loans that can be done without. While it is highly important in time of crisis that every borrower who is in a sound financial condition should be "carried" through the difficult period caused by the disruption of the credit structure and the consequent impairment of mutual credit operations, it is the part of wisdom to raise the discount rate to a very high figure as a means of deterring all borrowing that is not indispensable. As we have seen in the study of business cycles, it is imperative that a temporary halt be called to new commitments and a period of readjustment brought about. Very high discount rates discourage new commitments and promote financial readjustments.

In the second place, the raising of the interest rate may perform a positive function in attracting additional funds to the

[15] Cf. p. 615.

United States. In our study of the mobilization of credit we have been considering up to this point only the internal or domestic financial resources of the nation. We shall now find that through the control of the discount rate the way has been opened under the Federal Reserve System to attract funds from other countries in time of acute financial strain. High money rates in the United States, it is believed, would serve to attract funds from countries with low interest rates; for money, like other commodities, tends to flow to the regions where the return from its use is highest. European central banks have, in fact, on repeated occasions attracted foreign funds in time of emergency by the use of this method. If the great strain is felt simultaneously in all the leading commercial nations, however, and if the central banking institutions of all of them should resort at one and the same time to high interest rates, the result of course would be merely a stalemate. In any event, however, the United States will henceforth be in a position at least to prevent an outflow of funds at a time when our own reserves are in a dangerous condition.

"Open market operations" facilitate the control of credit.—Thus far we have been considering the Federal Reserve banks only in relation to their dealings with member institutions and with one another. While they are primarily bankers' banks, they are nevertheless given power to make certain direct investments—to engage in what are known as "open market operations." These operations are designed both to give the Federal Reserve banks opportunity for engaging in profit-making transactions and to strengthen their control of the general credit system.

Specifically, every Federal Reserve bank is empowered:

a) To deal in gold coin and bullion at home or abroad, to make loans thereon, exchange Federal Reserve notes for gold, gold coin, or gold certificates, and to contract for loans of gold coin or bullion, giving therefor, when necessary, acceptable security, including the hypothecation of United States bonds or

other securities which Federal Reserve banks are authorized to hold.

b) To buy and sell, at home or abroad, bonds and notes of the United States, and bills, notes, revenue bonds, and warrants with a maturity from date of purchase of not exceeding six months, issued in anticipation of the collection of taxes or in anticipation of the receipt of assured revenues by any state, county, district, political subdivision, or municipality in the continental United States.

c) To purchase from member banks and to sell, with or without its indorsement, bills of exchange arising out of commercial transactions.

d) To purchase and sell in the open market at home or abroad either from or to domestic or foreign banks, firms, corporations, and individuals, cable transfers and bankers' acceptances, and bills of exchange of the kinds and maturities by this act made eligible for rediscount with or without the indorsement of a member bank.

This power to deal in gold coin and bullion at home and abroad makes it possible for the Federal Reserve banks to bid for gold at the weekly auction of gold in London or elsewhere, and thus to strengthen our own gold position in case of necessity. This gold may be paid for either by the sale of securities held by the Federal Reserve banks or by means of the purchase of foreign bills of exchange. The borrowing of gold on acceptable security is also designed to give the Federal Reserve banks a greater control over the nation's gold supply, by preventing an outflow of specie at critical periods. If this gold is borrowed abroad it will give rise to an increased supply of bills of exchange, thus tending to prevent the rate of exchange from rising to the gold-exporting point. If borrowed in the United States, it will result in a shifting of gold supply from the member banks to the Federal Reserve banks, thereby tending to raise the general discount rate in the United States and thus to discourage the export of specie. Further influence upon exchange rates may

be exerted by virtue of the power of the Federal Reserve banks to buy and sell foreign bills of exchange in the open market in Europe.

The provision enabling the Federal Reserve banks to purchase and sell bills of exchange, etc., as listed under (*d*) above, makes it possible for them to accomplish two important results, aside from making profits for themselves: (1) It enables them to purchase the paper of banks which are not members of the Federal Reserve System and which are hence not in a position to secure needed funds through the process of rediscounting, thereby materially strengthening the general credit structure; (2) it enables them to exercise a direct influence upon interest rates at times when, owing to the lack of applications for rediscounts, they would be unable to influence interest rates through the ordinary process. But by virtue of their power to buy paper in the open market at a rate either higher or lower than the going rate, the Federal Reserve banks are in a position to set the pace and establish such new rates as in the view of the Federal Reserve Board are demanded by the situation.

V. THE CREATION OF A "DISCOUNT MARKET"

We have seen in the two preceding sections how the Federal Reserve System has provided a degree of elasticity in our bank note and deposit currency system hitherto unknown, and made possible a substantial control over the general credit and business structure. We may now consider how the development of what is known as a discount market gives a still greater flexibility to the commercial banking structure. Since the discount market is based upon the use of a commercial credit instrument known as the bank acceptance, a description of this instrument must first be given.

A photographic reproduction of a banker's acceptance will be found on page 123. It will be noted that it is a bill of exchange drawn by an individual against a bank and accepted by the latter for payment at a future date. It differs from a bank

check in that it is not drawn against a deposit account and is not an order to pay on demand. It owes its origin, like the book account, the promissory note, and the trade draft, to a commercial operation involving the sale of goods from A to B.

Let us suppose that A in Des Moines sells goods on time to B in Chicago. He may, as we have already seen in chapter viii,[16] sell on open account, entering the amount in his books as an account receivable; or he may ask B to give him a promissory note; or he may draw a draft upon B for the amount and send it to B for acceptance; or finally, he may draw a draft upon a bank designated by B, who makes the necessary arrangements with the bank.[17] Now if the Continental and Commercial National Bank of Chicago accepts on behalf of B a draft drawn by A, it is in a sense guaranteeing the credit of B. It is not an ordinary guaranty, however, because the bank assumes a position of primary liability: it does not bind itself to pay in case B fails to meet his obligations; but it agrees to pay on its own account.

The bank, however, looks to B to furnish it with the funds required in meeting the acceptance before the date of its maturity. It will be apparent that if B makes good on his agreement to put the bank in funds before the acceptance is due, the bank will not have parted with any money; it will merely have loaned B the use of its name, for which service it receives a small commission of one-eighth or one-fourth per cent of the amount of the acceptance. A bank takes some risks, however, for the reason that there is a possibility that B might fail to place the bank in funds in accordance with the terms of his agreement. The bank, however, makes a careful analysis of B's financial standing before agreeing to accept drafts on his behalf, and further protects itself by means of a trust receipt, such as

[16] See p. 118.

[17] We have already touched upon the principle involved in the bank acceptance in connection with the study of the part that commercial banks play in financing foreign trade. See chap. xix.

was discussed above in the chapter on "Commercial Banking and the Financing of Foreign Trade" (see p. 395).

Since an accepting bank does, however, incur a liability and since there is always some chance that this liability may have to be met out of its own resources, it was felt necessary to limit the volume of acceptances that might be made by any one bank. The law as first passed permitted the making of acceptances only in connection with foreign transactions—exports and imports; but through a subsequent amendment, deemed necessary because the state banking law of New York had made it possible for state banks to engage in the acceptance of domestic as well as foreign bills, the national banks are now permitted to make domestic acceptances. It is provided, however, that no bank shall accept for any one party to an aggregate in excess of 10 per cent of the bank's paid-up capital stock and surplus, unless the bank is secured by an attached document or by some other actual security growing out of the same transaction as the acceptance. Moreover, the total volume of bills that may be accepted by any one bank at one time shall not be more than one-half its paid-up capital stock and surplus; although the Federal Reserve Board may authorize total acceptances up to 100 per cent of the capital and surplus, provided not more than 50 per cent of the amount is in the form of domestic acceptances.

A bank acceptance is the highest form of credit instrument for the obvious reason that it is a direct obligation of a large financial institution whose practices are subject to careful regulation and control. Accordingly it is admirably adapted to serve as a basic credit instrument in the discount market.

For a terse and comprehensive statement of the nature and function of the discount market we cannot do better than to reprint at this place a statement of a prominent New York banker.

I. FUNCTIONS OF A DISCOUNT MARKET

a) Regulating medium of the cash and investment position of banks.—The most important function of a discount market is that it operates as a central reservoir of commercial credit by means of which individual

banks may regulate their investment and cash position. The discount market to be of proper use must be of sufficient breadth that a bank may be able at any time to purchase therein such amount of bills as it requires to properly balance its investment and cash position, with the full assurance that it can re-enter the market as a seller and readily dispose of such bills without materially affecting current discount quotations. This naturally necessitates a broad market in which a large volume of bills is constantly being handled and which can readily take or furnish a substantial quantity of bills without material fluctuations in its rate of discount.

b) Equalizer of interest rates between different sections of the country.—A broad discount market operates as an equalizer of interest rates between different sections of the country. If in one district the banks have surplus funds, their purchases of bills in the discount market will tend to keep interest rates in that district up to the level of the other districts. In like manner, if in a district interest rates begin to rise above the levels of the other districts, the banks of that section, by selling their holdings of bills in the discount market, would tend to keep interest rates approximately at the level of the other districts. It must be understood, of course, that to some extent inequalities in interest rates between various districts would continue, but these inequalities would not be as broad as they are at present. The inequalities would be limited to such minor differences in interest rates as the average bank is willing to forego rather than change its position and purchase or sell bills in the market. As time progresses and banks become more accustomed to dealing in the discount market, this difference would tend to become quite small.

c) Equalizer of interest rates between the United States and foreign countries.—This function of the discount market operates very much in the same manner as in the case of equalizing rates between different sections of the same country. The existence of a broad, healthy discount market in the United States would encourage foreign banks to purchase our bills as an investment when interest rates in this country are higher than abroad. This would tend to move our interest rates sympathetically with the level of rates the world over. Should our rates decline unduly, there would be a tendency on the part of foreign banks to dispose of their holdings of American bills and on the part of our banks to purchase foreign bills and dispose of their holdings of domestic bills, and thus a movement toward re-establishing an equilibrium between rates here and abroad would start. This does not mean that the rates here and abroad would be at the same level, but it does mean that the spread between rates here and abroad would ordinarily not be as far apart as they have been in the past.

d) Stabilizer of gold movements between countries.—This function of the discount market is really an after-effect of its operation as an

equalizer of interest rates between different countries. Foreign bankers would grow accustomed to having in their portfolios a line of American bills just as American banks have at times lines of foreign bills. As exchange rates rose in this country—which means that dollars would become cheap abroad—foreign banks would increase their holdings of American bills on account of the cheap dollar exchange rate, while American banks would sell their holdings of foreign bills to profit from the high foreign exchange rates. Gold exports would thus be warded off for a time. Gold imports would be retarded by a reversal of the process.

This process of accumulating a portfolio of foreign bills in time of financial ease for use when conditions are reversed has been used successfully by the central banks of all leading European countries and may profitably be utilized by our Federal Reserve banks when international relations again become normal. I do not mean that international movements of gold would be stopped by the operations of our discount market, but it is certain that many unnecessary gold movements would be prevented. It has actually occurred in the past that gold shipments in opposite directions have passed one another on the ocean. In other words, we have in the past frequently exported or imported gold when it was clearly to be foreseen that existing conditions were but temporary. However, it was not the business of anyone to give the matter any thought beyond simply calculating whether the prospective gold shipment yielded a profit, however small. We had no stabilizing mechanism that would tend to prevent such shifts of gold.

e) Stabilizer of interest rate levels within the country.—Preventing unnecessary exports and imports of gold and developing a closer relation between interest rates here and abroad would result in a greater stability of American interest rates. There would be a closer connection between the American reservoir of commercial credit and that of Europe. Large bodies are not subject to sudden movements to the same extent that smaller ones are. Interest rates in Europe in normal times are much steadier than ours; discount rates abroad move by sixteenths of 1 per cent and on the whole move within narrow limits.

II. THE NECESSITY OF A STANDARDIZED INSTRUMENT OF CREDIT TO THE EXISTENCE OF A DISCOUNT MARKET

The truth of this proposition is so self-evident that a lengthy explanation is not necessary. If we had no well-defined standards in grades of cotton, dealings on the Cotton Exchange would be impossible. The same holds good of wheat, oats, corn, or any other commodity. Before the inauguration of the Federal Reserve System, our banking system lacked a standardized credit instrument, and, therefore, a broad discount market was an impossibility. The Federal Reserve Act, by introducing the

bank acceptance into our banking mechanism, has furnished us the instrument we lacked. In a bank acceptance the element of credit risk has substantially been eliminated by the signature of a bank of unquestioned standing. The acceptance, therefore, represents absolute safety as nearly as can be attained in any credit instrument. The rate of discount at which such instruments sell in the market simply represents the actual value of the use of the money and not, as in the case of the discount of an ordinary promissory note, the value of the use of money plus a premium for the credit risk assumed by the lender. In every commercial country in the world, the discount market is based upon the bank acceptance, and the discount market in turn is the basis of the entire money market. Our brief experience since the passage of the Federal Reserve Act justifies the opinion that our discount market will likewise be based upon the same instrument —the acceptance.

III. COMPONENT FACTORS OF THE DISCOUNT MARKET

The component factors of a discount market consist: first, of the accepting banks that create the acceptance; the banks and others who purchase and sell acceptances; the central banks of rediscount (in our case the Federal Reserve banks) that operate as stabilizers at times when the movements of the discount market represent not merely the usual equalizing of the investment and cash position between the individual banks but, rather, a condition that is general throughout the country; and the discount corporations and brokers which act as the highly essential middlemen.

a) The acceptance banks.—In England a large part of the acceptances are created by the so-called acceptance houses. The English deposit banks have not in the past been as active in this line as those of France and Germany.

Our own experience leads me to the conclusion that the deposit banks in this country will be the main creators of acceptances. There is no valid reason why they should not be; in fact, it is to be preferred that banks operating under close public scrutiny should be the creators of the basis of our discount market rather than so-called acceptance houses, the standing of which is known to but few.

b) Bank and other purchasers and sellers of acceptances.—The purchasers and sellers of acceptances constitute the active discount market. A bank that is a purchaser one day may be a seller the next. Whether a bank purchases acceptances or sells in the market should depend entirely upon its own individual cash and investment position. When its position warrants a purchase it should step into the market and acquire the bills it needs, and when its position changes it should as freely sell.

c) The central rediscounting bank.—The central rediscounting bank in our country, the Federal Reserve bank, should operate as a stabilizer in

cases where the situation becomes one that is not equalized by purchases between banks. There will be times when a preponderant number of banks throughout the country are sellers of acceptances. At such times the Federal Reserve bank should purchase, under such regulations as it deems wise, either from the member banks or direct in the market, a certain amount of bills. On the other hand, the Federal Reserve bank should resell such bills when, in its judgment, market conditions justify such action.

d) Discount corporations and brokers.—Discount corporations and other bill brokers act as middlemen between the various factors of the discount market. They perform a very useful function and no steps should be taken that would tend to curtail their usefulness. The practice of banks holding their own bills should not be encouraged. Likewise, the practice of banks buying one another's bills without the intermediation of a broker is unsound as it tends to retard the development of the market. In the case of foreign or domestic acceptances, it matters little whether the accepting bank or the holder sells the bill to the broker; the essential part is that the mediation of the brokers should be utilized and the bill should not be kept off the market.

The practice has become prevalent in this country, in connection with domestic acceptances, of the accepting bank quoting its customer (the drawer) a flat interest rate which includes both the rate of discount and the acceptance charge and itself selling the acceptance to the broker. So long as the bill is sold to a broker who in turn puts the bill on the market, there can be no objection to this practice, as the bill finds its way into the open market and is there sold to such banks as require it.

The brokers operate not only as middlemen but their portfolios of bills constitute the floating supply without which a stable market would be impossible. This floating supply is naturally far in excess of the financial resources of the brokers and consequently some means must be available to them of borrowing money at rates that bear some relation to the level of the discount market.[18]

The present condition of the American discount market is stated by Jerome Thralls, vice-president of the Discount Corporation of New York, as follows:

The discount market as it is referred to in a general way is simply the combined facilities and services that are maintained and offered by a group of well organized and highly specialized discount houses and dealers whose principal business is that of discounting, carrying, and distributing bankers

[18] From an address by John E. Rovensky, vice-president of the National Bank of Commerce of New York, published in the *Economic World*, June 14, 1919.

acceptances and approved bank-endorsed trade bills. Some of these houses also specialize in United States Treasury Certificates and Treasury Notes. They deal actively as buyers and sellers of the various issues of these short-term United States Government obligations. The ability and willingness of these houses to buy and sell bankers acceptances make a ready and dependable market for such bills. These houses have substantial capital and buy and sell many millions of dollars of acceptances daily. Their capital although substantial is not adequate to finance all of their operations. Accordingly they are always in the market for funds with which to carry their holdings. They borrow from banks, firms and corporations, usually on demand or sharp call. They are occasionally favored with slow call or short-time money at favorable rates. Acceptances or Government securities are given by the discount houses as collateral for these loans. The rates on such loans average about ½ per cent below the call loan renewal rate, and are generally slightly less than the bid rate for thirty-day bankers bills.

The report of the American Acceptance Council for December 31, 1924, shows that our principal banks and bankers had, in the aggregate executed $821,000,000 of acceptances. Of these credits, $292,000,000 were for imports, $305,000,000 for exports, $38,000,000 for domestic shipments, $162,000,000 for warehoused goods, and $24,000,000 for dollar exchange. The report concludes:

> The ease with which $800,000,000 in bankers acceptances are handled by the discount houses and dealers who constitute the "Exchange" in the acceptance market shows conclusively that we now have a real discount market with sufficient capacity to absorb and distribute prime bankers acceptances to a still further increased volume.

VI. CLEARINGS AND COLLECTIONS

The Federal Reserve System has effected some noteworthy changes in our clearing and collection system. While not disturbing the process of clearing worked out by banks in a given city by means of the clearing-house associations, it has materially modified the system by means of which out-of-town checks are collected, and it has introduced a new clearings feature, that of the gold settlement fund for the settling of balances between the Federal Reserve banks themselves.

It will be recalled that under the old system of collecting out-of-town checks the correspondent banks in reserve and central reserve cities were utilized for the purpose, the service being performed by the city banks as partial compensation for the use of the reserve and other funds which were currently deposited by country institutions with their city correspondents. This system of collection was in many respects socially uneconomical, often involving, as we found in chapter xxi, the roundabout routing of checks and long delays in securing the funds. And during the entire period that a check was in transit, the bank which had cashed it was counting the uncollected item as a part of its available reserve. The "float," or volume of checks in transit in this roundabout process of collection, was characteristically very large, and it amounted to a substantial reduction of the actually available reserves of the banking system.

The old system, moreover, often proved an annoyance and a financial burden to the customers for whom the checks were collected. Collection charges were typically very diverse and often appeared to be arbitrarily discriminatory. For want of any standards—aside from those agreed upon in some of the clearing-house associations—many banks undoubtedly charged excessive rates, while others did not even cover the costs entailed.

While authority was given by the Federal Reserve law for the introduction of a new clearing and collection system, the Federal Reserve Board proceeded very slowly in the formulation of a new system, for the reason that it was foreseen that a thorough reorganization of collection methods, involving losses of collection revenues to certain banks and changed relationships between city and country bank correspondents, would arouse no little opposition. The Federal Reserve Board therefore felt its way carefully, first trying out a voluntary system for the member banks of each district; and it was not until July 5, 1916, that the new clearing system (compulsory on all member banks) was put into operation.

As finally evolved, there are two parts to this Federal Re-

serve collection system: (1) intra-district clearings, and (2) inter-district clearings. The former relates to the collection and clearing of checks between banks in the same Federal Reserve district; the latter to that between banks in different Federal Reserve districts. We may consider each in turn.

1. *Intra-district clearings.*—Under a ruling of the Federal Reserve Board every Federal Reserve bank is required to exercise the functions of a clearing-house for its members and for certain qualified non-member banks, known as "clearing member banks." Under this system each Federal Reserve bank is to receive at par, that is, without collection charges, "checks drawn on all member and clearing member banks, and on all other non-member banks which agree to remit at par through the Federal Reserve bank of their district." The extension of the "privilege" to non-member banks is of course designed to universalize the process.

Under this plan a member bank in Milwaukee, which receives a check drawn on a bank in Springfield, Illinois, may charge the depositor thereof a collection fee; but in the process of clearing the check neither the Federal Reserve Bank of Chicago nor the Springfield bank may make any collection charge. Since all banks within a given district have deposit accounts with the Federal Reserve banks, the accounting may be taken care of merely by debiting and crediting the accounts of member banks at the Federal Reserve bank. It should be noted, however, that the proceeds of the check are not made available for withdrawal by the Milwaukee bank or counted as a part of its reserve until sufficient time has elapsed to permit it to be actually collected and the funds returned to the Federal Reserve bank. The amount of time that must elapse before it can be counted as reserve varies with the distance of the bank upon which the check is drawn from the Federal Reserve bank which is collecting it.

2. *Inter-district clearings.*—The system of inter-district clearings is a necessary complement to the intra-district clearings. Under this plan every Federal Reserve bank receives at

par checks drawn upon any bank within its district (whose checks can be collected at par), when presented by banks outside the district. That is to say, if a check drawn on a Chicago bank is cashed by a bank in San Francisco it will be sent to the Federal Reserve Bank of Chicago where it will be received at par and be collected from the bank upon which it is drawn. The San Francisco bank, however, does not itself send the check to the Chicago bank; for since it is in a different reserve district it has no direct relation with the Chicago reserve institution. It therefore sends the check to the Federal Reserve Bank of San Francisco, which acts as agent in the process of collection. Nor does the Federal Reserve Bank of San Francisco send each check individually for collection to the Federal Reserve Bank of Chicago. As in other clearing operations, counter claims largely offset one another. The inter-district clearings are effected through a system of offsets at the Federal Reserve Board at Washington, involving the new feature of clearings above referred to, namely, the gold clearance fund.

Clearings between Federal Reserve banks are effected by means of a "gold clearance fund."—The Federal Reserve law has required each Federal Reserve bank to forward to the Treasury at Washington, or to the nearest subtreasury, for credit to the account of the gold settlement fund, under the administration of the Federal Reserve Board, $1,000,000 in gold or gold certificates, plus an additional amount equal to its indebtedness at the moment to other Federal Reserve banks. At 10:00 A.M., eastern time, each bank sends a telegram to the Federal Reserve Board stating the amount it has credited to other Federal Reserve banks during the preceding day. Just as the Federal Reserve Bank of Chicago now effects the settlement of the daily balances of Chicago clearing-house banks by increasing or decreasing the deposit accounts of each bank, as determined by the record of the daily clearings, so the Federal Reserve Board adds to or subtracts from the account of each Federal Reserve bank in the gold settlement fund. In case the balance of any

Federal Reserve bank falls below $1,000,000, it must be immediately replenished by sending additional gold to the Treasury. It should be added that the balance thus maintained by each Federal Reserve bank is counted as a part of its legal reserve. The establishment of this gold settlement fund has rendered the volume of money that needs to be shipped from one section of the country to another almost negligible in quantity. The system of intra- and inter-district clearings has, moreover, practically eliminated the "float." This result is regarded by many as the greatest achievement of the collection system.

The cost of collecting checks was originally borne by the banks which were receiving the benefit. Each Federal Reserve bank kept a record of the cost of performing the service and charged the amount to the bank for which the service was rendered, the usual charge being one and one-half cents per item. But in 1918, in order to popularize the system with the banks, all service charges were abolished. This move rather effectively silenced the opposition—except, as we shall see, on the part of certain state institutions.

The attempt to coerce state banks into having their checks collected at par has met with very stout opposition.—As a means of extending this collection system to include state institutions, the Federal Reserve banks undertook—at the time the compulsory feature for member banks was introduced—to collect for member banks, and for such state banks as had voluntarily joined the clearing system, checks drawn on any state bank which would agree to remit its items at par. This many state banks agreed to do. All banks, whether member or non-member, which remitted checks for collection at par were henceforth known as "par" banks; and in order to facilitate the collection of checks, the Federal Reserve Board issued a monthly supplement to the *Federal Reserve Bulletin,* its official publication, giving a list—with map—of the par institutions.

An effort to universalize this collection system was inaugurated early in 1919. Every effort was made by Federal Reserve

officials to persuade the state banks voluntarily to agree to remit their checks for collection at par; and during the year about 6,000 banks fell into line. The Federal Reserve banks, moreover, resorted to other means than peaceful persuasion; for as soon as the non-par banks of any district became few in number, the Federal Reserve bank of the district undertook to collect at par checks drawn on all the banks of the district, whether they had agreed to remit at par or not. This was to be accomplished through the instrumentality of a local agent—a bank, an express company, or a suitable person, or corporation. By the middle of 1920, the par banks numbered nearly 28,000 out of a total of 29,768 commercial banks in the entire country.

In the South and West many state banks have steadfastly refused to remit at par, and the legislatures of some states have passed laws making the collection of checks through the Federal Reserve System more difficult. The right of the Federal Reserve bank to present checks for collection over the counter was contested in the courts in the Atlanta case, in which certain banks in Georgia endeavored to restrain the Federal Reserve Bank of Atlanta from collecting, other than through the mails, checks drawn on the complaining banks. It was contended in this case that although the Reserve bank had the right to present each individual check for collection over the counter, it had no right to present a great many checks at one time in that manner since such action might prove embarrassing to the drawee bank. The courts upheld the position of the Reserve bank, however, and dismissed the complaint. No evidence of malicious intent on the part of the Reserve bank was presented, and the courts held that the bank had acted within the law and in the public interest.

The acts of the legislatures interfering with the attempt of the Federal Reserve Board to establish the par collection system were also tried out in the courts. The legislature of North Carolina in 1921 passed a law authorizing state banks and trust companies to pay any checks, drawn upon them, either in cash or in exchange drawn on the reserve deposits of the drawee bank.

The law also authorized state institutions to charge a certain minimum fee on remittances covering checks drawn on them. The constitutionality of the North Carolina law was attacked on several grounds, but the Supreme Court upheld the right of the legislature to pass the law.[19] As a result of this decision, adherence to the par collection system on the part of any nonmember bank is voluntary, and the further spread of the system depends upon the realization by the banks that par collection, offering them prompt and economical collection of their own checks, is to their ultimate advantage. The final outcome will in all probability be a universal free collection system.

With reference to the losses incurred by local banks under the par collection system, it should be understood that no bank is denied the right to make a "service" charge against the customers for whom the checks are being collected. Many banks, in fact, levy such charges; while others prefer to assume the loss as an incidental expense, believing that this method has compensations in promoting the good will of customers. All that is necessarily lost is the fee formerly charged for remitting checks for collection.

VII. RELATION OF THE TREASURY TO THE FEDERAL RESERVE SYSTEM

In our analysis of the operation of the national banking system in a preceding chapter, attention was called to the relation of the federal Treasury to the banking and credit system. The establishment of a series of government banks under the Federal Reserve law has made it possible for the banking system to assist the Treasury in its fiscal operations and in general for the Treasury Department to work in harmony with the banking and currency requirements of the country. The Federal Reserve Act provides that

money held in the general fund of the Treasury, except the 5 per centum fund for the redemption of outstanding bank notes, and the funds pro-

[19] Decision rendered June 11, 1923.

vided in this Act for the redemption of Federal Reserve notes, may, upon the recommendation of the Secretary of the Treasury, be deposited in Federal Reserve banks, which banks, when required by the Secretary of the Treasury, shall act as fiscal agents of the United States; and the revenues of the government or any part thereof may be deposited in such banks, and the disbursements may be made by checks drawn against such deposits.

The act did not, however, deny to the Secretary of the Treasury the right still to use member banks as depositaries for public funds.

The Federal Reserve banks have in fact performed a very important service in connection with the fiscal operations of the government. Co-operating with the federal Treasury in every way, they largely assumed the burden of managing the huge financial operations that were imposed upon the government during the Great War.

As yet, however, the Treasury Department has not been completely divorced from the member banks. It was the belief at first that the Federal Reserve institutions would rapidly displace the national banks and the subtreasuries as depositaries of government funds; but war conditions served to prevent the withdrawal of government funds from individual banks for subsequent deposit in the Federal Reserve institutions. The heavy financial requirements of the war, even before our entrance into it, made it seem unwise to withdraw from the banks the lending power which was given to them by virtue of the deposit of government money. It was felt that a minimum disturbance to the money market would be secured if the government's funds were allowed to remain widely scattered and kept as far as possible in the banks of the communities where the government received its funds. In consequence the amount of government deposits has increased rather than decreased since the inauguration of the Federal Reserve System. It is of interest, also, that the law authorized the deposit of the funds derived from the sale of the Liberty Bonds and certificates of indebtedness issued during the

war, in classified state banks and trust companies as well as in national institutions.

The way has been opened by a recent act of Congress for enlarging the responsibility of the Federal Reserve banks in connection with the fiscal operations of the government. The subtreasury system, composed of nine subtreasuries located in different parts of the country, was abandoned on July 21, 1921, and its work was taken over by the Federal Reserve banks. While this act does away with the subtreasury, it does not insure that all government funds shall be kept with Federal Reserve rather than with member banks.

Is the Federal Reserve Board under the domination of the Treasury Department?—The association of the Federal Reserve Board with the Treasury Department has given rise to some criticism. It is asserted that Treasury fiscal requirements have dominated the policy of the Federal Reserve Board at times when banking requirements were paramount and did not run parallel wth Treasury requirements. Concretely, it is urged that the desire of the Treasury Department to make a record in floating huge Liberty Loans at very low rates of interest was responsible for the policy inaugurated by the Federal Reserve Board during the war and maintained until after the Victory Loan was completed, of keeping discount rates at a very low level and hence stimulating speculation and inflation of the currency. It has accordingly been vigorously urged that the Federal Reserve Board should be cut loose from the Treasury Department in order that it may exercise its great responsibilities unhampered by the views of the Treasury or by considerations of political expediency for the party in power. It is unnecessary to enter upon a discussion of the merits of the contention that the Federal Reserve policy of maintaining low discount rates was opposed to public interest; it is enough to point out the possibility of making the Federal Reserve Board subservient to the Treasury.

VIII. FEDERAL RESERVE BANK STATEMENT

The following financial statement shows the condition of the Federal Reserve banking system ten years after its inauguration.

RESOURCES AND LIABILITIES OF THE FEDERAL RESERVE BANKS

MAY 20, 1925

RESOURCES

Gold with Federal Reserve agents	$1,531,216,000
Gold redemption fund	50,679,000
Gold settlement fund, Federal Reserve Board	654,157,000
Gold and gold certificate held by banks	598,569,000
Total gold reserves	2,834,621,000
Reserves other than gold	145,974,000
Total reserves	2,980,595,000
Non-reserve cash	56,665,000
Bills discounted	338,402,000
Bills bought in open market	276,026,000
U.S. government bonds	85,529,000
Treasury notes	251,108,000
Certificates of indebtedness	21,745,000
Foreign loans on gold	10,500,000
All other earning assets	2,350,000
Total earning assets	985,560,000
Uncollected items	674,761,000
Bank premises	59,701,000
All other resources	23,199,000
Total resources	$4,780,481,000

LIABILITIES

Capital paid in	$ 115,448,000
Surplus	217,837,000
Member bank, reserve account	2,118,163,000
Government deposits	32,732,000
Other deposits	25,527,000
Total deposits	$2,176,422,000

Deferred availability items	601,151,000
Federal Reserve notes in actual circulation	1,656,474,000
All other liabilities	13,149,000
Total liabilities	$4,780,481,000

MEMORANDA:

Ratio of total reserves to deposit and Federal Reserve note liabilities combined	77.8 per cent
Contingent liability on bills purchased for foreign correspondents	$ 39,007,000
Own Federal Reserve notes held by Fedreal Reserve bank	$328,537,000

QUESTIONS FOR DISCUSSION

I. THE ORGANIZATION OF THE SYSTEM

1. Draw up a summary statement of the weaknesses in the national banking system that called for elimination.
2. Draw up a summary statement of the chief steps in the progress of banking reform legislation.
3. Study the map of the Federal Reserve districts, together with the table showing the number of banks in each district and the capital and surplus of each Federal Reserve bank, and suggest any district changes which you think ought to be made.
4. How many branch reserve banks do you find? Would you suggest any additional ones, or any eliminations?
5. State in your own words what you think are the functions of the Federal Reserve Board. In addition to the material in the text, look through the copies of the *Federal Reserve Bulletin* in the library.
6. Enumerate the devices that have been adopted to insure a representative and democratic control of the Federal Reserve System.
7. What is the purpose of the Federal Advisory Council?
8. What are the duties of the Federal Reserve agent of each Federal Reserve bank?

II. THE ELASTIC BANK-NOTE CURRENCY

9. Consult the table on page 93 and note the relative volume respectively of national bank note, Federal Reserve bank note, and Federal Reserve note currency.
10. What inscription is found on the Federal Reserve bank notes? on the Federal Reserve notes?
11. What was the reason for the failure of the Federal Reserve Act to provide for the complete elimination of the inelastic national bank-note

currency? What is the explanation of the provision of the new form of inelastic bank-note currency in the guise of the Federal Reserve bank note?

12. What is it that gives to the Federal Reserve notes an elastic quality?
13. It is crop-moving period. Show by a concrete illustration how a country bank, say in Ottawa, Kansas, could procure $5,000 of additional bank notes for the needs of its agricultural constituency. Indicate the changes that would occur on the balance sheets both of the member bank and the Federal Reserve bank.
14. Is it necessary for the particular notes which have been issued for an emergency to be retired in order to secure the necessary contractility?
15. Show what changes would occur on the balance sheets of the First National Bank of Ottawa, Kansas, and of the Federal Reserve Bank of Kansas City when $5,000 of Federal Reserve notes are retired.
16. Draw up a statement in outline form showing the security back of the Federal Reserve notes.
17. What different kinds of bank assets are eligible as security for Federal Reserve notes?
18. Show by a concrete illustration how the provision which permits gold and gold certificates to be exchanged with the Federal Reserve agent for Federal Reserve notes expands, the lending capacity of Federal Reserve banks.

III. THE CONTROL OF CREDIT

19. Indicate how the Federal Reserve System mobilized or concentrated the financial resources of the country.
20. "By virtue of the improved organization of our banking and credit machinery which the Federal Reserve System has made possible, the banks are enabled to conduct their operations with safety on a much slenderer margin of reserves." Explain why this is so.
21. How much, in fact, have reserves been reduced under the Federal Reserve System?
22. What will determine whether, in the case of a seasonal demand for funds, rediscounting operations with the Federal Reserve bank will result in the creation of Federal Reserve note or of deposit liabilities?
23. When a member bank has occasion to borrow from a Federal Reserve bank, what will determine whether it will rediscount the commercial paper of its customers or borrow on its own promissory note with commercial paper or government securities as collateral?
24. Might a member bank in need of funds secure them indirectly from the Federal Reserve bank by selling bankers' acceptances in the open market, the Federal Reserve banks being the purchasers? (See balance sheet on p. 594.)

25. Do you think it makes any difference from the standpoint of banking safety or the liquidity of assets which method a member bank uses in borrowing from the Federal Reserve banks?
26. What provisions of the Federal Reserve Act are designed to enable the Federal Reserve banks to check undue expansion of business during the upward swing of the business cycle?
27. "Raising the rates of discount has both a negative and a positive effect on financial conditions." What are these effects?
28. Do you think the control over the rate of interest is intended for use mainly in time of acute tension?
29. It is a period of acute crisis. Bank A in Kokomo, Indiana, has in its portfolio $10,000 of eligible commercial paper which it had discounted on August 1, at 7 per cent, the date of maturity being November 1. On September 15 this paper is rediscounted with the Federal Reserve Bank of Chicago at 8 per cent. The paper is paid at maturity by the customer of the Kokomo bank. Make the necessary changes on the balance sheets (*a*) of the Kokomo Bank, both when the loan is made and when it is paid; (*b*) of the Federal Reserve Bank of Chicago, both when the rediscount is made and when the obligation is liquidated. Assume that these transactions do not involve the use of Federal Reserve notes.
30. To what extent could the Kokomo bank expand its loans as a result of the rediscount operations suggested in the preceding question?
31. What is the limit to the expansion of deposit currency through the process of rediscounting (*a*) so far as any single bank is concerned; (*b*) so far as all the banks of a given district are concerned; (*c*) so far as all the banks of the United States are concerned?
32. Draw up a summary statement showing how the Federal Reserve System strengthens the weak links in the banking chain.
33. "The significant feature of the Federal Reserve Act is that it transfers the responsibility for maintaining adequate reserves for emergencies from the privately owned banks of the financial centers to the governmentally controlled Federal Reserve institutions." Show in what ways this is advantageous from the standpoint of banking control.
34. "The Federal Reserve System is panic proof. Therefore there is no occasion for anyone to urge that business expansion must be checked in order to prevent a financial collapse." Do you agree with this statement?
35. If you were a member of the Federal Reserve Board, what policy would you favor adopting: (*a*) during a period of depression; (*b*) during the early stages of the upward swing of a business cycle; (*c*) at the beginning of a critical period; (*d*) at a time of acute financial tension?

36. In what ways may the Federal Reserve Board exercise control over the credit situation through "open market operations"?
37. Sell a bill of goods for $10,000 to Mr. Jones in New York, and draw a bank acceptance for the amount and discount it at your local bank. Show what changes would occur on the balance sheet of the accepting bank and of the bank which discounts the acceptance.
38. Show concretely how a bank acceptance is profitable to (*a*) the accepting bank; (*b*) the person for whom the acceptance is granted; (*c*) the seller of the goods; (*d*) the bank which discounts the acceptance.
39. What is meant by a discount market? Is it in any sense comparable to a stock market?
40. If the Federal Reserve banks are always able to rediscount the commercial paper of member banks or lend them funds on collateral security, why is it still necessary for a member bank always to have access to an open discount market where it can sell acceptances, etc.?
41. What is the relation of the bank acceptance to the development of a discount market?
42. What is the purpose of the acceptance banks of Europe? Are such institutions indispensable to the development of a discount market?
43. Why is it believed that the growth of discount corporations or brokers is necessary to the efficient operation of a discount market?

IV. CLEARINGS AND COLLECTIONS

44. What parts of the clearing and collection system have been affected by the Federal Reserve System?
45. What was the objection to the "float" that characterized the former collection system?
46. A bank in Grand Rapids, Michigan, receives a check from one of its customers drawn against a bank in Milwaukee, Wisconsin. Show how it would be collected under the Federal Reserve clearing system. How would it probably have been collected under the old system?
47. A bank in Springfield, Massachusetts, receives a check drawn on a bank in St. Louis, Missouri. Show how it would be collected under the Federal Reserve System. How would it probably have been collected under the old system?
48. What is the purpose of the gold settlement fund? In what respect is it analogous to the system of settling clearing-house balances by means of clearing-house certificates? In what respects does it differ?
49. Have the state banks not a right to oppose their attempted coercion into the Federal Reserve clearing system?
50. Do you think that in the end all of the banks will find it to their advantage to use the system of par collections? Why, or why not?

V. THE TREASURY AND THE FEDERAL RESERVE SYSTEM

51. Why did not the Federal Reserve System eliminate the system of depositing government funds with individual depositary banks?
52. Would you favor the abolition of the system of depositing government funds in individual banks? Why, or why not?
53. How did the Federal Reserve System make possible the elimination of the sub-treasury system?
54. Would you favor severing the relation of the Federal Reserve banks with the Treasury Department, including the elimination of the Secretary of the Treasury as a member of the Federal Reserve Board?
55. As a member of the Federal Reserve Board in time of war, would you take the stand that Federal Reserve policy should be formulated without regard to the fiscal problems of the Treasury Department?

VI. ANALYSIS OF FEDERAL RESERVE BANK STATEMENTS

56. Under what designation do "rediscounts" appear in the balance sheet on page 594? Collateral loans to member banks?
57. What is the meaning of the item on the resources side, "Gold redemption fund"?
58. What is the meaning of "Uncollected items and other deductions from gross deposits"?
59. What is the meaning of the entry "Deferred availability items" on the liability side?
60. Does the large surplus fund of the Federal Reserve banks indicate that these institutions have been profiteering?

REFERENCES FOR FURTHER STUDY

Agger, Eugene E.: *Organized Banking, chaps.* xiii and xiv.

Dewey, Davis R., and Shugrue, Martin J.: *Banking and Credit,* chaps. xxii and xxiii.

Holdsworth, John Thom: *Money and Banking,* chap. xxii.

Kemmerer, Edwin W.: *The A B C of the Federal Reserve System.*

Laughlin, J. Laurence: *Banking Progress,* chaps. iv, vii, and x.

Phillips, Chester A.: *Readings in Money and Banking,* chap. xxxi.

Willis, H. Parker: *The Federal Reserve System.*

Willis, H. P., and Edwards, George W.: *Banking and Business,* chaps. xxiv and xxv.

CHAPTER XXV

TEN YEARS OF THE FEDERAL RESERVE SYSTEM

The Federal Reserve System was established at a date which marked the beginning of a decade of momentous financial developments. The requirements of the Great War and of the reconstruction years that have followed imposed burdens of tremendous magnitude upon the financial systems of all countries. In the absence of banking reform there is little question that the United States would have witnessed, first, a severe financial panic and currency stringency that would have greatly impeded war operations, and, second, a resort to irredeemable paper money as the only means of meeting the financial requirements of the Treasury. The remarkable way in which the Federal Reserve System has carried us through, not only the war period, but the difficult years that have followed, is ample vindication of the great hopes of its founders.

During the first two years of its operation the Federal Reserve System was little used. The reduction of reserve requirements of the member banks by the Federal Reserve Act, coupled with an inflow of gold from Europe, resulted in a very great increase in the lending power of the individual banks. Accordingly, the rediscount facilities of the Federal Reserve banks did not appear to be necessary, and there developed the view on the part of many of the banks of the country that the Federal Reserve System, after all, did not amount to much and that the capital which they had invested in the system was a bad investment. The entrance of the United States into the war, however, quickly disillusioned the bankers as to the adequacy of their own financial resources.

I. THE WAR AND THE FEDERAL RESERVE SYSTEM

At the time of the entrance of the United States into the world-war, the volume of reserve money in the Federal Reserve banks was very large. It will be recalled that the cash resources of the Federal Reserve institutions were originally derived in part from the capital contributions of the stock-holding member banks and in part from deposits, both of member banks and of the federal government. These sources yielded large funds to the Federal Reserve banks at the very commencement of their operations. Later, the amendment to the Federal Reserve law which made it necessary for each member bank to keep all, rather than merely a portion, of its required reserve in the Federal Reserve bank of its district; the concentration of gold reserves through exchanging Federal Reserve notes for gold, as described above; and finally, the accession of the larger state banks as members of the Federal Reserve System, very greatly increased the volume of reserve money in the central reservoirs. In 1916 the ratio of cash to notes and deposits combined in the twelve Federal Reserve banks was about 87 per cent; and although for more than a year we had one foot in the conflict, the net reserve was about 77 per cent at the time we formally entered the war in 1917. Our financial structure was, therefore, in an extraordinarily strong position for meeting the financial strain of a great war.

Expanding business and rising prices required a great increase of currency.—As the volume of business expanded between 1915 and 1918, the volume of bank loans and deposit currency also necessarily expanded. And as the price level rose (whether the rise was caused by the expansion of bank loans or not is for the present purpose immaterial), the volume of funds required in the financing of a given volume of business was also increased. Concretely, by 1918, when the price level was substantially double what it had been in 1914, there were required to conduct a given amount of business about two dollars to

every one dollar that had been required before the war. That is to say, every business man found that he must have substantially twice the amount of money with which to meet pay-roll requirements, buy raw materials, etc., that had theretofore been necessary. As we have elsewhere seen, such additional working capital must characteristically be borrowed from the commercial banking institutions.

After their excess reserves were exhausted, the member banks resorted to rediscounting at the Federal Reserve banks as a means of procuring the funds required for business uses. The result was to increase the discounts of the Federal Reserve banks on the asset side and to increase the liabilities either in the form of Federal Reserve notes or deposit liabilities. It should be kept in mind in this connection that the process did not occasion a withdrawal of cash from the Federal Reserve institution. On the contrary, the cash resources were steadily increasing during the war period, owing to the policy of mobilizing the gold reserves. The significant fact is that the liabilities in the form of Federal Reserve notes and deposits increased much more rapidly than the cash, with the result that the reserve ratio necessarily fell.

Government financing also led to an enormous expansion of Federal Reserve notes and deposits.—The size of government bond issues was so great that they were not subscribed in full by individuals, out of their own savings. Liberty bonds were often purchased by individuals with funds borrowed from the bank on the security of previously purchased Liberty bonds as collateral. But more important was the purchase of Liberty bonds by the banks themselves. In each Liberty Loan campaign the banks helped put the quota over by purchasing in the closing hours of the campaign large quantities of the bonds on their own account. Since the individual bank's lending resources were used up early in the war, they had to procure the funds with which to purchase Liberty bonds through rediscounting operations at the Federal Reserve banks. They could borrow the

money with which to buy Liberty bonds from the Federal Reserve banks either on commercial paper or on government bonds as collateral.

While under the original Act it was expected that the member banks could borrow from the Federal Reserve banks only on commercial paper growing out of commercial, industrial, or agricultural business operations, an amendment to the Federal Reserve Act in 1916 authorized them to borrow on government bonds as collateral. Accordingly, there was never any danger whatever that a government bond issue would not be subscribed in full—by the banks, if not by the public—so long as the Federal Reserve institutions possessed unused lending power.

The first table on page 604 shows the Federal Reserve discounts that are secured by United States government obligations and by commercial bills and notes at the end of each year from 1914–24. It will be seen from the table that during the war years, 1917, 1918, and 1919—the latter being included because of the Victory Loan which was floated in that year—the banks borrowed much more on the security of government obligations than through rediscounts of commercial paper. During the business boom period of 1920 the borrowings on commercial paper, however, exceeded in volume those on government obligations, but in the following four years the borrowings on government paper were as large as on commercial bills and notes.

The extent to which national banks themselves have owned government securities at the end of each year since the establishment of the Federal Reserve System is shown in second table on page 604. It will be seen both from this table and the one above that the statement so commonly made that "commercial" banks serve only commercial needs has no foundation, in fact. The resources of state banks, both in the city and in the country, reveal a similar situation. As indicated in previous chapters, it was true, long before the war, that the commercial banks were heavily interested in investment operations; the drift in

this direction has merely been intensified during, and since, the war.

The effects of the tremendous volume of commercial and

FEDERAL RESERVE BANK DISCOUNTS, 1914–24

(In Thousands of Dollars)

End of Year	Secured by U.S. Government Obligations	Commercial Bills and Notes	Total
1914	.....	9,909	9,909
1915	.....	32,368	32,368
1916	.....	30,196	30,196
1917	283,421	397,285	680,706
1918	1,400,371	302,567	1,702,938
1919	1,510,364	684,514	2,194,878
1920	1,141,036	1,578,098	2,719,134
1921	485,233	659,113	1,144,346
1922	331,790	285,990	617,780
1923	353,685	369,383	723,068
1924	186,840	127,288	314,128

government borrowing operations during these years upon the reserve condition of the Federal Reserve banks is shown by the chart on the accompanying page. It will be seen that at the

UNITED STATES GOVERNMENT SECURITIES OWNED BY NATIONAL BANKS, 1915–24

(In Thousands of Dollars)

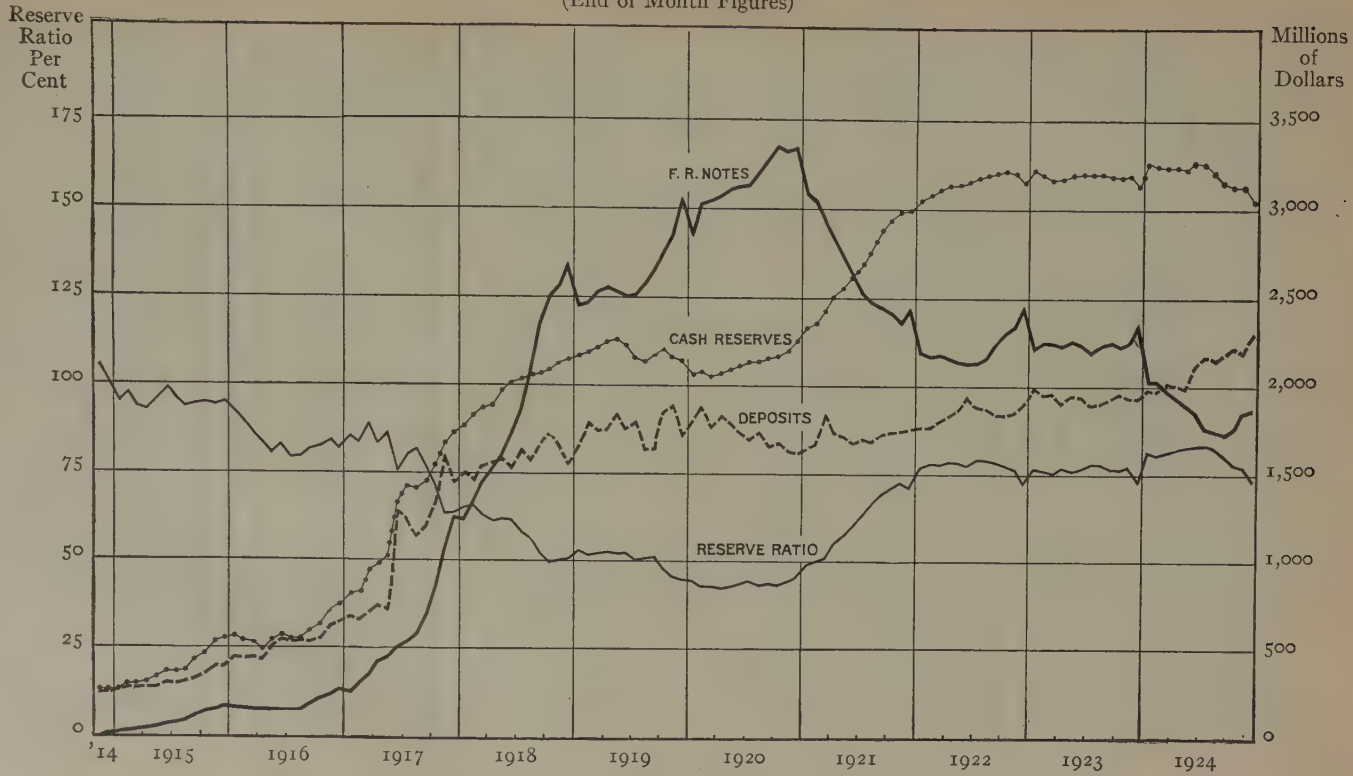
End of Year	Amount	End of Year	Amount
1915	774,639	1920	2,131,573
1916	716,960	1921	1,975,898
1219	1,624,529	1922	2,656,560
1918	2,956,394	1923	2,566,851
1919	2,723,493	1924*	2,579,190

* October 10, 1924.

end of the war the reserve at the Federal Reserve banks was still well above the minimum requirements, standing at approximately 50 per cent at the date of the Armistice. It was not until

FEDERAL RESERVE BANK RESERVE POSITION[1]

(End of Month Figures)



[1] Chart reproduced, by permission, from E. A. Goldenweiser, *Federal System in Operation.*

the height of the post-war inflation boom that the reserve limits were approached.

That the Federal Reserve System enabled the financing of the war to be carried through with a minimum of difficulty, no competent student denies. The most that can be said against the system is that it made the financing of the war too easy, encouraging the use of bonds as a means of war finance and thereby inequitably distributing the burden of war costs. The responsibility for the large use of bonds as a means of war finance cannot, however, be placed primarily at the doors of the Federal Reserve System, the Treasury rather than the Federal Reserve Board being responsible for the methods of war finance.

The real issues of Federal Reserve policy and the adequacy of the system to do what it was designed to do in connection with the prevention of banking crises and the control of credit and business operations are best tested by the experience of post-war years.

II. POST-WAR FEDERAL RESERVE POLICIES

As a result of factors which need not here be considered, the depression immediately following the Armistice was not of long duration. In April, 1919, there began a new upward swing of a business cycle which brought renewed pressure to bear upon the Federal Reserve banks for funds. As is always the case in a period of very active business, the pressure on commercial banks for loans did not come merely from the manufacturing and mercantile interests; it came, to a very considerable extent, from stock-exchange speculation, and from the flotation of new issues of corporate securities. It will be recalled from our previous analysis of the relation of the commercial banking system to the financing of stock-exchange speculation, to the outright purchase of securities, to the making of collateral loans for fixed-capital purposes, and to the activities of investment bankers engaged in the marketing of securities, that the funds of the commercial banking system constitute the support for the entire

financial fabric, investment and speculative, as well as commercial. The great stock speculation of the year 1919 absorbed large quantities of bank funds, while the flotation of securities which were carried either by investment bankers or by individuals on funds borrowed on collateral served still further to reduce the reserves of the Federal Reserve banks. An important factor, also, was the organization of a horde of financing or stock jobbing concerns engaged in the promotion of speculative enterprises, all of which absorbed funds; while the land booms in many states still further added to the financial strain. Both speculation and investment, save in government securities, had been largely held in abeyance during the war period by restrictive legislation and by the activities of the Capital Issues Committee, which effectively prevented in the latter part of the war the sale of securities of concerns that were not deemed essential to the winning of the struggle. Hence when the post-war boom period developed, an extraordinary volume of new issues was floated. At the same time the Victory Loan, amounting to $4,500,000,000, had yet to be floated, and a large volume of borrowing through Treasury certificates of indebtedness was still necessary.

Another factor in the rapid depletion of our reserves after the Armistice was the outflow of specie from the United States to South America and the Orient in the meeting of adverse trade balances. This amounted, between June 1, 1919, and January 1, 1920, to approximately $300,000,000. It should be recalled in this connection that since in our financial system the cash reserves need be only about 5 per cent of the total outstanding claims against cash, every dollar of specie that is exported means a curtailment of credit, or of credit possibilities, to the extent of about twenty dollars.

The result of these various strains upon the financial systerm was shortly to reduce the reserve ratios in the Federal Reserve banks from around 50 per cent to a point dangerously near the minimum reserve requirements laid down in the Federal Re-

serve Act. By the end of the year 1919 the ratio of cash to Federal Reserve notes and deposit liabilities combined in the twelve Federal Reserve banks was below 45 per cent. The question whether the Federal Reserve System might fail to control the expansion of credit and to prevent the recurrence of financial panics, such as occurred in the old days of unorganized banking, therefore became of more than acadamic interest. It was frankly feared by many that if the central reserves should continue to fall until they reached the legal minima, we should not be in a very much better position to meet the conditions of an acute crisis than was the case under the old banking system.

The Federal Reserve Board has been criticized for its credit policy in connection with the crisis of 1920.—In brief, it has been contended that the Federal Reserve Board should have raised its rates of discount in the early summer of 1919 instead of waiting until the winter of 1920. The issues involved cannot be fully discussed here. It must suffice to point out that the advance in prices following the Armistice began at a time when government financial requirements were still at their height. The Victory Loan had yet to be floated and a large volume of borrowing through the issue of Treasury certificates of indebtedness was still necessary. The Treasury Department was naturally desirous of placing these loans at as low an interest rate as possible. Whether the Federal Reserve Board should have strenuously objected to this on the ground that high rates of interest were necessary to check a dangerous business boom is highly debatable.

Until the early autumn of 1919 it was not apparent how severe the financial strain was to be. Certainly at the time the details of the Victory Loan financing were arranged, there was no consensus of opinion that the price level was going to advance and that we were to enter into a period of very active business. Moreover, it was at the time deemed very important that every effort be made to promote a revival of business activity in order to facilitate the absorption of the returning war-workers and

soldiers and the early rehabilitation of the depleted economic resources of the world; and a sharp rise in discount rates early in 1919 would probably have been a deterrent to such economic recovery. After the details of the Victory Loan had been agreed upon, it was moreover impossible for the Federal Reserve Board to raise rates during the period of the Victory Loan financing which ran to the end of the year 1919, without breaking faith with the bankers of the country who had formulated policies and made loans on the understanding that the Victory Loan was to be put through at a low interest rate.

In the early summer of 1919, however, the Federal Reserve Board issued an official warning, urging the necessity of curtailing loans for speculative purposes in the interests of "legitimate" commercial needs. This warning, which passed virtually unheeded by either the bankers or the speculative community, was not reiterated until the middle of October, by which time the credit situation had become very grave, following a period of unrestrained speculation. On this occasion the banks of New York co-operated with the Federal Reserve Board, sharply raising rates on call money and actually restricting the volume of credit that brokers might obtain, with a resulting abrupt collapse of stock-market values and the permanent dissolution of the bull market that had prevailed—with an August intermission—since the early spring.

A curtailment of stock-exchange speculation did not, however, suffice, and could not in the nature of things suffice, to relieve the monetary strain. What was needed was a thoroughgoing readjustment of prices to a lower basis—deflation, to use a common expression—even though it be accompanied by a halting of business activity. Not until January, 1920, apparently, did the Federal Reserve Board fully appreciate the gravity of the reserve situation and seek to effect a readjustment of conditions. After a conference with leading bankers it was then decided that the necessities of the credit situation demanded a

real advance in discount rates.[1] The first increase was not very great, however, for a cautious feeling of the way seemed advisable; and, moreover, it was still the belief of many that an elimination of loans for speculative purposes—commodity speculation as well as stock-exchange speculation—would release a sufficient quantity of funds to take care of essential business requirements without necessitating any drastic readjustment of business. It was hoped that a moderate increase of discount rates, together with a sharp discrimination by bankers against speculative loans, would accomplish the desired results.

During the early months of 1920, however, the advance in interest rates appeared to have little effect upon business activity. The profits that might be derived, in most lines of industry, from the use of borrowed funds were so great that interest rates were for the time a matter of only secondary importance. The volume of loans therefore continued to be large, business continued to be active, and prices continued to rise; and until March there was little *surface* indication that price and business readjustments were in store.

Despite subsequent further increases in the discount rates at the Federal Reserve banks, and, in consequence, almost immediately at the member institutions, the credit strain became increasingly acute until late in May, when the Federal Reserve Board again called a conference of bankers to consider how the volume of loans might be reduced and the reserves replenished sufficiently to accommodate the autumn seasonal requirements without danger of a financial collapse. It was agreed at this conference that before autumn it would be necessary to curtail loans on the average by about 10 per cent, if the banks were to be placed in a position to meet, without serious difficulty, the demands that were certain to be placed upon them during the crop-moving period. Before considering the subsequent events, however, it will be well to refer briefly to certain changes in

[1] Very slight advances had been made in November and December.

economic conditions that had already occurred during the spring.

Other economic factors helped to bring about a readjustment of business and financial conditions.—Aside from the great increase in interest rates, at least two other factors of major importance were conspiring to bring about a readjustment of business and prices in the spring of 1920. First, there was the breakdown of the transportation system, owing to a combination of factors which need not be considered here. The inability of the railroads to move commodities at the customary rate, however, slowed up the entire productive and distributive process and made it necessary for business men everywhere to secure extensions of credit for a longer period and for larger amounts than would otherwise have been required. A new expression, "frozen credit," was coined to describe this condition. The result of this inability of traffic to move was thus to augment the pressure on the banks for loans and thereby to reduce still further the ratio of cash to deposit and note liabilities. And notwithstanding the fact that there was a considerable (unexpected) inflow of gold to the United States in April, incident to the pre-payment of the British share of the Anglo-French loan, maturing in October, the reserves of the twelve Federal Reserve banks combined, continued to decline until in May they reached the low level of about 42.5 per cent. A further factor which contributed to the financial uncertainty of these months was the settlement of the tremendous volume of farm real estate transfers that had been contracted in the boom period of the preceding year.

The other major factor that was contributing to a readjustment of business conditions was the high cost of living. The steady rise in commodity prices during 1919 and the first months of 1920, accompanied as it now was by substantial increases in rents, had finally reached a point where it was forcing a curtailment of consumptive demand. Whatever may have been the case earlier, it had by this time certainly become true that the net annual wages of labor, speaking generally, as well

as the income of the salaried classes, were failing to keep pace with advancing prices, with a resulting decline in the real purchasing power of the rank and file of people. The "peak" of prices was reached in the spring of 1920, among other reasons, because consumptive demand was not sufficient to absorb the existing volume of production at the prices for which goods were then being offered. Popular hostility to the continuous marking up of prices is also believed by many to have finally led to a voluntary reduction of purchases. In any event the result of the curtailed consumptive demand was manifested in the month of May in retail price concessions in silks, textiles, leather goods, and a few other commodities.

Another factor which no doubt contributed somewhat to the unsettling of American business was the decline in our trade balance, which became pronounced in the spring of 1920. The decrease in foreign demand and the increasing competition of imported commodities were alike influences tending to bring about business readjustment in the United States. It is of note in this connection that in several lines the prices of raw materials had begun to decline early in the year, particularly in lines subject to world-wide market influences.

Pertinence is given to the suggestion that numerous factors besides the rising interest rates contributed much to the price and business readjustment which we have been discussing, by virtue of the fact that the readjustment is a world-wide phenomenon and is found in countries that have not raised interest rates as well as in those that have. It appears to have had its definite beginning in the financial crisis in the Orient, which occurred in February.

We may now return to a consideration of the manipulation of the interest rate. What is to be said of the effectiveness of this method of control as tested in the spring of 1920? The answer, in brief, appears to be that the increase of interest rates played a part in superinducing the business reaction that began in May, but that it was greatly aided and abetted by trans-

portation, cost of living, and other conditions already discussed. No one will ever know, in fact, whether, in the absence of these contributing factors, the raising of interest rates would have succeeded in checking the volume of business and bringing about a price readjustment in time to prevent a financial panic of the old-fashioned sort. The unresolved issue is, whether if transportation facilities had been normal, and if money wages could have kept substantial pace with rising prices for only a few months longer, the rise in interest rates would of itself have sufficiently narrowed margins of profit to precipitate a business readjustment and a reduction of prices before the reserves had been reduced to the breaking point.[2]

In any case it is of interest to consider the events subsequent to the conference of bankers with the Federal Reserve Board mentioned above. While it was believed that a substantial curtailment of loans was indispensable to the safety of the credit system, it was felt that this curtailment, in accordance with American traditions, should not be forced from above, but should be worked out by individual bankers, each deciding for himself the volume of loan curtailment that could reasonably be effected by his institution. Under this method it is very doubtful if, in the absence of the untoward business developments discussed above, an adequate volume of loan contraction could have been effected. The pressure that is brought to bear upon each individual banker to take care of the financial requirements of "valued customers" is, usually, too strong to be resisted wholly; when it comes to the point, it is so much easier to let the others carry the responsibility. If business had been still straining at the leash, as it was in the autumn of 1919, for example, the best that could have been hoped for from this method of loan contraction would probably have been the prevention of still further expansion and a consequent maintenance of reserves at the then-existing level.

Be all this as it may, the business depression that began in

[2] See also p. 614.

the spring undoubtedly very greatly aided the Federal Reserve Board and the bankers generally in their efforts to avert a further deterioration in the reserve position. Merchants unable to dispose of their stocks at existing prices made concessions, meanwhile canceling orders from wholesalers and manufacturers and even returning large volumes of goods that had already been delivered. This in turn resulted in the partial suspension of operations by many mills and factories and in the complete closing of others. And as is always the case, the resulting increase in unemployment had its effect in still further reducing consumptive demand, and thus in bringing cumulative pressure to bear upon prices—the price recessions gradually extending to nearly all groups of commodities. Moreover, as is again always the case in every period of depression, construction activities, that is, the creation of additional capital goods, were very sharply curtailed, thus reducing the purchasing power of all those engaged in the building industry, as well as the demand for building materials.

There was a genuine business crisis in the early summer of 1920.—One other fact remains to be mentioned in connection with the crisis of 1920. Beginning about the middle of May, the credit tension became of the acute variety that has heretofore characterized the weeks immediately preceding a financial collapse. Just as soon as the decline in prices, with the concurrent slackening of industry and the backing up of the speculative waters, began, great numbers of business men were panic stricken much as in former times. The cancellation of business orders, the failure of creditors to meet their obligations promptly, the recurring slumps in inventory values, and the uncertainty as to the whole future trend of events developed a veritable business crisis—accompanied by the usual insistent pressure upon the banks for loans with which to tide over the interval of readjustment. There was one noteworthy difference, however, between this and former similar occasions. Widespread confidence in the Federal Reserve System proved a powerful sedative.

It is significant to note in this connection that the short-time commercial credit that was outstanding could no more be liquidated than any other credit obligations; the Federal Reserve System was called upon to "carry" the entire credit burden. This it proved able to do by virtue of the margin of unused reserves that still existed. Whether or not the Federal Reserve System would have been able to prevent a financial collapse if the period of expansion had been continued until the reserves were down to the legal minima, it undoubtedly prevented a financial panic in late May or early June of 1920.

The Federal Reserve System has provided both seasonal and cyclical elasticity.—Since 1920 we have had a long-enough period in which to test the system from the standpoint of its adaptability to the varying requirements of business. In the matter of seasonal elasticity it has worked with entire satisfaction. The seasonal variations in the supply of Federal Reserve notes and deposit currency are revealed in the chart on page 605. It should be repeated in this connection that the elasticity that has resulted from the system has tended to minimize seasonal fluctuations in interest rates.[3]

The cyclical elasticity is indicated in the chart by a reduction in Federal Reserve notes and deposits following the crisis of 1920; an expansion during the recovery period of late 1921 and 1922; a contraction in the spring of 1923; another expansion in the winter of 1924; a slight contraction in the spring; and a subsequent expansion again in the autumn of the same year. In this connection the chart showing outstanding deposits and note fluctuations should be compared with the chart on page 485 showing fluctuations in business conditions.

While the system has thus undoubtedly resulted in providing an elastic currency, both as respects deposits and notes, there is, however, still a great deal of discussion over the problems of credit control. The outstanding issues are: Just how

[3] See also p. 474.

effective is the system in stabilizing business conditions? And what are the most effective methods of credit control?

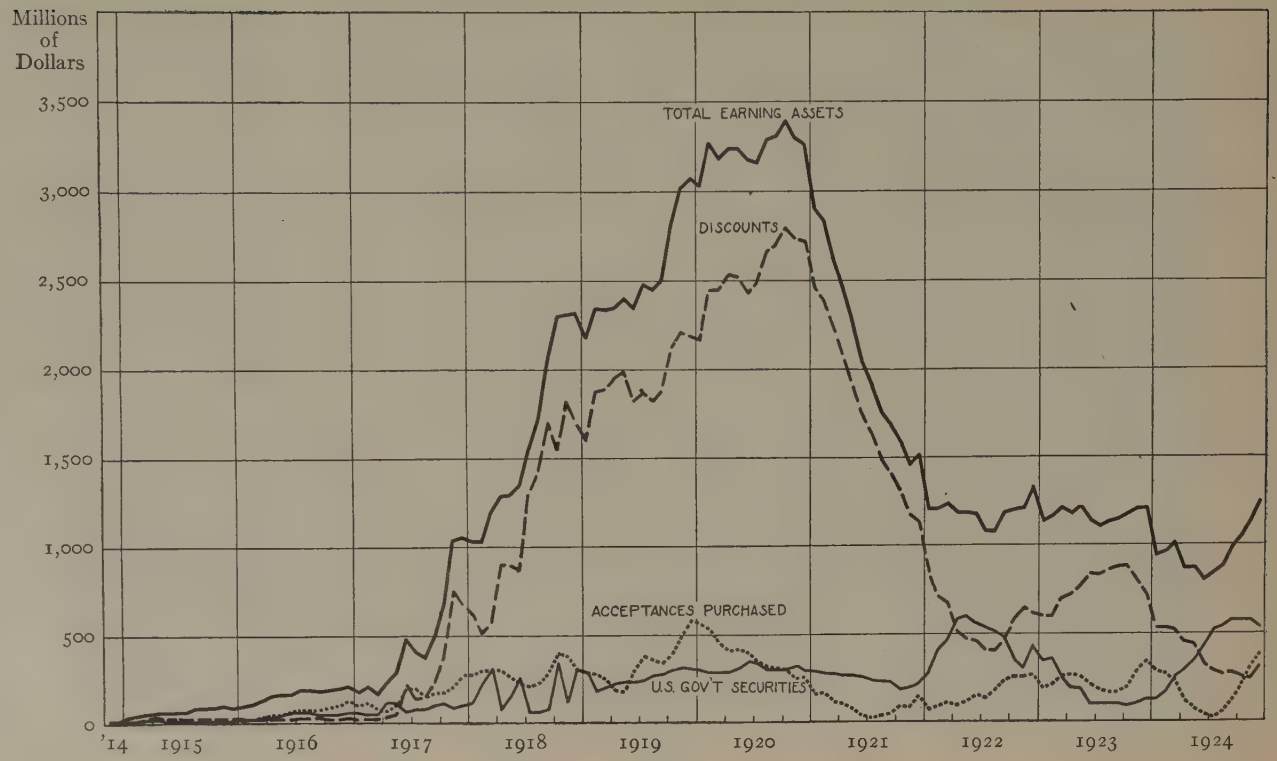
The last few years have brought two departures from, or modifications of, the principles of credit control. In the first place, the Federal Reserve Board no longer regards the reserve limits as the proper guide to the need for increasing interest rates; rather they are guided in their discount policy by general business conditions. The explanation of this development is that the drastic liquidation of 1920 and 1921, coupled with the huge inflow of gold from abroad created, as the chart on page 605 indicates, a reserve against notes and deposits combined, far above the minimum reserve requirements. Accordingly, if no credit restraint were to be imposed until the reserve limits were approached, a boom might prove of protracted duration, with unfortunate ultimate consequences.

A better key to discount policy is believed to be the index of production which the experts employed by the Federal Reserve Board have worked out. So long as it appears that additional expansion of loans is being accompanied by an increase of production, the Board will not raise discount rates; but when it appears that production is no longer increasing, the Federal Reserve Board seeks to restrain further expansion.

In this connection it should be noted that the Federal Reserve administrators do not conceive it as a part of their function to attempt to prevent price fluctuations, except within broad limits. In other words, they do not accede to the doctrine held by exponents of the quantity theory of money that by a rigid control of the quantity of credit, or deposit currency, they can stabilize business conditions and prevent all fluctuations in prices.

It is the view of the Federal Reserve Board that the price situation and the credit situation, while sometimes closely related, are nevertheless not related to one another as simple cause and effect; they are rather both to be regarded as the outcome of common causes that work in the economic and business situation. The same conditions which predispose to a rise of prices also predispose to an increased demand for credit. The demand for credit is conditioned upon the business outlook. Credit is created

EARNING ASSETS OF FEDERAL RESERVE BANKS, 1914–24



in increasing volume only as the community wishes to use more credit—when the opportunity for the employment of credit appears more profitable. Sometimes borrowers want to borrow more and sometimes they are content with less. Sometimes lenders are ready to lend more and at other times less. Why this should be so depends on all those multifarious conditions and circumstances that affect the temper of the business community. For the most part these conditions lie beyond the radius of action of the Federal Reserve banks. When the business outlook is inviting business men are apt to adventure and new business commitments are made in increasing volume. But only later will these commitments be reflected in the possible rise of prices and an increase in the volume of credit provided by the commercial banks of the country. The Federal Reserve banks will not to any considerable extent feel the impact of the increased demand for credit until the whole train of antecedent circumstances which has occasioned it is well advanced on its course; that is, until a forward movement of business, no matter from what impulse it is proceeding, has gained momentum.[4]

The second modification of policy has been to supplement the control of business conditions through variations in the discount rate by open-market transactions. It will be recalled that open-market operations involve the direct purchase, or sale, in the money market, of government securities and acceptances by the Federal Reserve banks. If, in a time of depression, the Federal Reserve banks wish to increase the amount of money in the channels of circulation, the idea is that they would buy government bonds and acceptances. If, in a period of very active business, they wish to decrease the amount of money in circulation, it is the idea that they will sell such securities. It is not the thought that such operations would obviate the necessity, at times, of raising or lowering discount rates; they merely supplement the control process.

As stated in the *Federal Reserve Bulletin:*

Open-market operations provide a cushion of credit between the direct borrowings of member banks and the money market, and have facilitated the flow of credit into and out of the reserve banks in such a way as to exercise a steadying influence in the market and to reduce the tendency toward periodical tightness of money formerly felt by business in the spring and by agriculture in the autumn. Indeed, open-market operations, particularly sales of securities, have proved to be a valuable adjunct to dis-

[4] *Tenth Annual Report of the Federal Reserve Board,* pp. 31–32.

count policy. The minor influence which sales of securities by reserve banks exert may at times avoid the necessity for resorting to the major influence of a change in discount rates.[5]

This method was first used in the spring of 1923 when business had reached a very active stage; and in the light of its assumed success in that period it has been seized upon by some economists as a veritable panacea by means of which prices and business conditions may henceforth be kept in a state of almost complete stability. The chart on page 617, however, shows conclusively that open-market operations are of negligible importance in the control of credit. When government bonds and acceptances were sold by the Federal Reserve banks it did not decrease the total volume of money available for business; the rediscounts of the member banks in the Federal Reserve System increased by an amount approximately equal to the amount of funds withdrawn from the market through the sale of securities.

It is sometimes contended, however, that even though this be true the sale of securities is nevertheless important from the standpoint of credit control in that the withdrawal of funds from the money market forces the banks to resort to the Federal Reserve banks for additional funds and thus makes the discount rate an effective means of control. This can be true, however, only provided the banks would otherwise not be in need of rediscounts. The truth of the matter appears to be that it is only in periods of active business in which the banks are already heavy borrowers from the Federal Reserve banks that there has been any occasion for resorting to this type of credit control. The most that can be said is that it intensifies the need of the member banks for rediscounts, and thus makes the higher rates slightly more effective than they would otherwise be.

In the winter of 1923 the discount rate was in fact raised about one-quarter of 1 per cent. It is the view of at least some of those concerned with the administration of the Federal Re-

[5] *Op. cit.* (January, 1924), p. 3.

serve System that this increase was of negligible effect and that other factors in the general business situation were largely responsible for the reaction in business that occurred. The fact that a similar reaction occurred in 1924 when there had been no advance in interest rates supports the view that credit policies had little to do with these fluctuations in business activities. Similarly, there has as yet been little evidence to support the view that the lowering of interest rates has had a very pronounced effect upon stabilizing business conditions.

All this is not to say that the Federal Reserve Board, through the control of discount rates, may not exercise some influence over general business. It has already been noted that the increase of discount rates had an undoubted influence in bringing on the reaction of 1920; and it is not to be denied that a sharp increase of discount rates, at any time, would serve as a restraining influence on business—if for no other reason, because it would be regarded as a warning sign that financial difficulties lie ahead.

While it is premature to attempt any final statement of the effectiveness of the machinery of control provided by the Federal Reserve System, as measured by the financial events of the past ten years, it would appear that a decidedly favorable verdict must be rendered. While some mistakes as to credit policy have perhaps been made, it will, no doubt, be generally conceded that the financial problems of the world-war and its aftermath have been of unprecedented complexity and magnitude and that the fallible human administrators of the modern financial organization have done about as well as could reasonably have been expected. It is at least gratifying that the management of the new American financial system has compared very favorably with that of the older and more fully developed European systems.

QUESTIONS FOR DISCUSSION

1. State the various means by which the reserves of the Federal Reserve institutions were built up between 1914 and 1917.
2. Evidence has been presented to show that the physical volume of busi-

ness increased between 1914 and 1918 by about 8 per cent. Assuming the price level to have remained the same, how would this have affected the reserves of the Federal Reserve institutions?

3. Show how a doubling of the price level would affect bank reserves.
4. So far as reserves were concerned, did it matter particularly whether borrowing from the Federal Reserve bank took the form of Federal Reserve notes or deposit accounts?
5. What determined the maximum amount of Liberty bonds (*a*) that any individual bank could purchase; (*b*) that the banks as a whole could purchase?
6. What determined the total volume of Liberty bonds that individuals could purchase through the use of their credit at the banks, that is, on funds borrowed from the banks on collateral security?
7. Show concretely how the banks would ultimately have to give up the payment of specie on demand.
8. Draw up in summary form a statement of the various sources of credit absorption during the upward swing of the business cycle which began in the spring of 1919. Which do you regard as most important?
9. Explain the large export of specie in 1919 and 1920. Explain why for every dollar of specie exported there must be a credit curtailment of substantially twenty dollars.
10. If you had been a member of the Federal Reserve Board in the spring of 1919, what policy would you have advocated? in the autumn of 1919? Why?
11. Why could not a curtailment of stock-exchange speculation suffice to relieve the monetary strain during the upward swing of the business cycle?
12. It was urged by many that an increase in production together with a decrease in consumption was all that was necessary to bring about a substantial reduction in prices and a consequent easing of the tension in the money market. Judging from the analysis of business cycles in the preceding chapter, do you gather it is possible to secure an increase in the efficiency of labor and capital at the height of a period of prosperity?
13. If the increased production is attained, not as a result of increased efficiency within particular plants, but only in consequence of hiring hitherto unemployed labor and new immigrants to engage in *additional* production, would there be any decrease in the demand for bank funds?
14. Judging from your previous study of business cycles, do you think that a decline in consumptive demand and an increase in production usually go together?

15. Concretely, how was it expected that a decline in prices would affect bank reserves?
16. Do you see any means whereby a decline in prices might have been effected without precipitating a business depression? Do you see any means whereby bank reserves might have been increased without either a business depression or a decline in prices?
17. If wages and salaries had everywhere been raised as fast as the cost of living was advancing, could not a decline in consumptive demand in the spring of 1920 have been avoided? Would this have prevented a period of readjustment?
18. What peculiar difficulties were there in the winter of 1920 in the way of an effective use of high interest rates?
19. "The Federal Reserve System is panic proof." Do you agree with this unqualified statement?
20. "There can be no credit collapse so long as additional funds are available; and under the Federal Reserve System there is unlimited lending power." Is this a true statement of the situation?
21. Criticize the statement that open-market operations aid in giving seasonal elasticity to the credit system.
22. Discuss the proposition that open-market operations are an important aid to credit control at the peak of the business cycle in that they force the member banks to borrow from the Federal Reserve banks and thus enable the latter to make higher discount rates effective.
23. In a period of depression how could the purchase of government bonds and acceptances in the open market cause business to expand?

REFERENCES FOR FURTHER STUDY

Federal Reserve Board: *Annual Reports.*

Federal Reserve Bulletin. Consult monthly bulletins for official pronouncements of the Federal Reserve Board.

Goldenweiser, E. A.: *The Federal Reserve System in Operation.*

Laughlin, J. Laurence: *Banking Progress,* chap. xi.

Mitchell, Wesley C.: "Prices and Reconstruction," *American Economic Review,* Vol. X, No. 1 (March, 1920).

Reed, Harold L.: *The Development of Federal Reserve Policy.*

Willis, H. Parker: *The Federal Reserve System.*

CHAPTER XXVI

RAISING CAPITAL FOR AGRICULTURE

The analysis of financial operations in all of the preceding chapters has related primarily to the financing of industry and commerce, with only incidental reference to the agricultural side of our economic life. In the present chapter we shall view the financial structure from the point of view of agriculture, noting in what ways the financial institutions which have already been considered are associated with agricultural finance, and discussing, particularly, the work of the numerous special financial agencies that have been evolved for facilitating the raising of capital for agricultural purposes.

Because of the nature of the farm industry there have been developed three types of agricultural credit institutions. Accordingly, we shall depart from the method of analysis used in the case of corporate and partnership enterprises engaged in commerce and industry and instead of speaking of fixed and working capital, we shall discuss the raising of capital for agriculture under the headings: (1) long-term credit; (2) intermediate credit; and (3) short-term commercial credit. The first is identical in nature with that of the fixed capital of industrial enterprises and the third is directly analogous to the working capital. From the point of view of the duration of loans, intermediate credit, as the term indicates, lies midway between short-term and long-term credit, running from six months to three years in time. From the point of view of the uses to which the funds are put, however, intermediate credit partakes of the nature of both fixed and working capital.

The chart on page 625 shows the agricultural financial structure that has been developed. Before discussing the specific functions of the various institutions, a few words are necessary

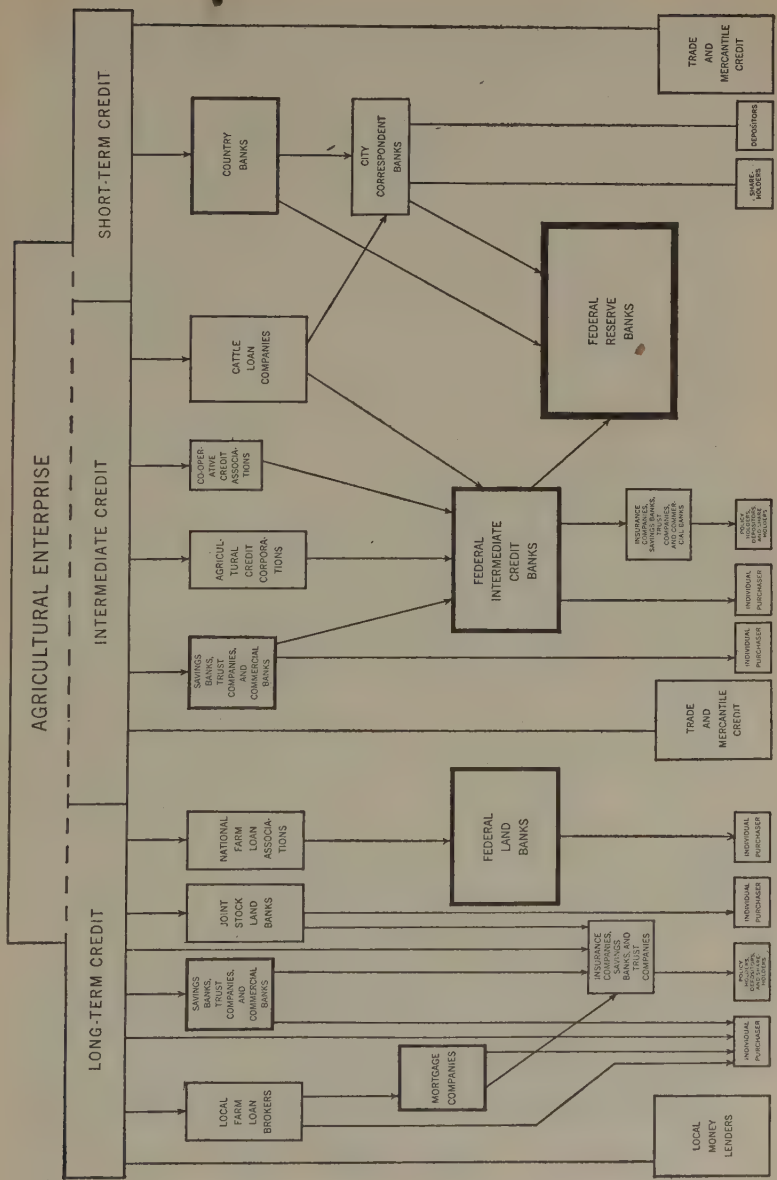
by way of explanation and amplification of the chart. The chart is divided into three parts, devoted to long-term, intermediate, and short-term credit. The arrows indicate the movement of the securities from the maker to the ultimate purchaser. It will be observed, in the first place, that some funds under each division are supplied from local sources without requiring the intermediation of any financial agencies. Thus, local money-lenders furnish considerable quantities of long-term credit, while local stores, implement companies, etc., supply intermediate and short-term credit in the form of goods purchased on time.

Second, the chart does not make clear one important feature of the farm mortgage business. Farms have been very commonly purchased by the method of paying part down and giving the seller a mortgage on the property for the balance. It will be seen that no intermediary financial institution is necessary in such a case; hence this method of borrowing could not well be portrayed upon the chart. Many mortgages made subsequent to the purchase are also consummated directly without the intermediation of any third person or institution. This is indicated in the chart by the straight line connecting "Long-Term Credit" with "Individual Purchaser."

Third, it will be seen that savings banks and trust companies appear in two different places in connection with long-term credit. In the upper part of the diagram they are put down as distributors of farm mortgages while in the lower part they are grouped with insurance companies, as final purchasers of mortgages and also of farm-loan bonds, as is indicated by the lines connecting with the Joint Stock and Federal land banks. Under intermediate credit, they also appear along with insurance companies, savings banks, and trust companies, as purchasers of the debentures issued by the Intermediate Credit banks.

It is necessary to add a word of explanation for placing commercial banks along with savings banks and trust companies as distributors of farm mortgages and debentures; for it is

INSTITUTIONS UTILIZED IN AGRICULTURAL BORROWING



commonly supposed that it is no part of the business of such institutions to deal in mortgages. The truth is, however, that many commercial banks and trust companies have farm mortgage departments and engage in the buying and selling of mortgages. This applies not only to the commercial banks of the smaller towns but also to some of the large institutions of the financial centers.

Many of the small state commercial banks purchase real estate mortgages for investment purposes; and the trust funds administered by trust companies are in no small degree invested in farm mortgage securities. The part that savings banks play as purchasers of mortgages may be seen by reference to the statistics of savings bank investments as shown on pages 309 and 315. It will also be recalled[1] that the insurance companies have afforded the largest single outlet for the sale of farm mortgages and that without their support American agriculture would in the past, at least, have found it practically impossible to procure the funds required for its expansion and development. In this connection it should be noted that the chart does not clearly indicate the relative importance of the insurance company as a purchaser of farm-loan securities. On the other hand, it plays up the Federal Farm Loan System out of proportion to its immediate importance, though not, it is believed, to its ultimate significance in the rural-credit structure.

Fourth, a line might also be drawn from "Long-Term Credit" to "Commercial Banks," for many loans have been made for fixed-capital purposes by state banks and trust companies, on mortgage security, and by national banks on single- or double-name promissory notes, indefinitely renewed.

Finally, the chart does not adequately indicate the work that *co-operative credit associations* perform in furnishing working capital for agriculture. A brief discussion of the work of these institutions is, therefore, necessary. There are numerous co-operative plans in use. Under one method, for example, dairy

[1] See p. 327.

farmers enter into an agreement with a local banker, or other money-lender, to adopt an approved system of dairying. The lenders of the funds buy the dairy stock and sell it to the farmers at actual cost, plus a percentage to cover expenses. Under this method the lender takes the farmer's personal note, with or without indorsement, or, as the case may be, with mortgage security on the stock purchased. Another plan similar to this calls for a joint guaranty by a group of farmers that the loans will be paid, each member of the group also assuming individual liability for the entire loan.

Some very interesting credit associations have also been developed for making short-time loans to Jewish farmers. The Jewish Agricultural and Industrial Aid Society had, in 1913, seventeen credit unions, all located in eastern states. The principle underlying these co-operative associations is the extension of credit by the association as a whole to any member who is in need of funds. These unions are quasi-philanthropic enterprises, and the loans are made at an exceptionally low rate of interest. At the present time there are about thirty credit unions in North Carolina with a membership of one thousand and total resources of over $100,000. Although co-operative credit associations have been used successfully for many years by the farmers in Europe, these associations have not had a similar growth in the United States. The type of agriculture carried on in this country is so different from that in Europe that credit institutions adapted to European conditions do not seem to meet the requirements of the American farmer. It is doubtful if we shall see any remarkable growth of this type of credit in the near future.

With this preliminary survey of the problem of agricultural credit in mind, we may turn to a consideration of the practical operations of the various financial agencies that are utilized in raising funds for agricultural purposes. It will be found expedient to discuss the various types of farm credit institutions in the order of their historical development.

A. Short-Term Credit

The working or operating capital used in agriculture is derived from a variety of sources—from commercial banks, cattle loan companies, private individuals, implement manufacturers, canning factories, local merchants, wholesale dealers, etc. The security back of farm loans also assumes a variety of forms.

An estimate by the United States Department of Agriculture,[2] placed the amount of bank loans to farmers on personal and collateral security on December 31, 1920, at $3,869,891,415, or 13 per cent of the total loans and discounts of all of the banks of the country. Thirty-six per cent of the total had no other security than the farmers' single-name written promise to pay; while 32 per cent was covered by notes bearing one or more endorsements. Chattel mortgages on live stock covered 18.3 per cent of the total; warehouse receipts, 1.4 per cent; stocks and bonds, 4.2 per cent; and miscellaneous, 1.9 per cent.

I. TRADE CREDIT

Until comparatively recent times the farming communities have in fact borrowed the larger portion of their working capital from other than banking sources. For reasons which need not here be considered, the farmer typically purchased the supplies needed for current use on the farm from the local stores, paying for them in the autumn after the sale of the season's crops. Such credit was usually extended without the requirement of a promissory note; it was book credit, with the merchants as a rule keeping the only records. Since the risks were relatively large, collections being slow and uncertain, the merchants necessarily added a substantial amount to the price of the goods in order to cover the risks involved. The looseness of the system, moreover, opened the way to exorbitant or usurious charges.

The system of trade credit has had its most extensive development in the South, particularly in connection with the growing of cotton and tobacco by small landowners and tenants.

[2] *Bulletin,* No. 1048.

Under this system a local merchant or dealer at the beginning of the crop-growing season extends a line of credit at the store to a cotton-grower, for example, and takes a "lien" on the cotton crop, or a chattel mortgage on the crop plus any other property which the borrower may own. It is the custom to grant a maximum trade allowance per month, the amount varying with the community and with the color of the tenant. The interest is nearly always deducted in advance, and it appears that the borrower has, as a rule, been greatly overcharged for his goods. Perhaps the worst evil of this system is the fact that the borrower is virtually at the mercy of the storekeeper.

Besides the local merchant, the owner of the land not infrequently advances the trade credit to the tenant. It is also sometimes furnished by a "cotton factor" acting as the agent of a large cotton-dealer. In some cases, moreover, the advance takes the form of actual money rather than goods. Private individuals have in many communities also made money loans to cotton- and tobacco-growers.

A very interesting development in rural credit in recent years has been the furnishing of seed and supplies to farmers by fruit- and produce-dealers, wholesale grocers, canning factories, etc. It appears that in many cases the advances take the form of actual money—the amount of the loans being deducted from the price of the crops, which are sold to the concerns which have furnished the capital required.

While this trade credit is extended directly by the local merchants, dealers, etc., the banks nevertheless ordinarily play an important part in the process, for the local merchants and dealers meanwhile usually borrow the funds from the local banks or are carried by wholesalers and dealers higher up in the trade; in this event these latter middlemen borrow heavily from the banks of the larger centers. In many cases, moreover, particularly in the farm-implement line, the credit is extended by the manufacturers who borrow the necessary funds from the banks of the financial centers.

This farm-implement credit, it will be seen, is ordinarily used for what may be called "fixed-capital purposes." Much of this credit is extended, however, for a period of only six months, for the reason that many tools and supplies last for one season only. In the case of harvesting machines, however, the common practice has been for the manufacturer to allow three years for payment, one-third being paid in cash at the end of the first season, with promissory notes given for the balance. These notes are usually guaranteed by the retail-dealer, who acts as the local agent for the manufacturer.

While this system of selling farm implements still prevails to some extent,[3] and while it is true that a vast amount of trade credit is even now extended to farmers by local merchants, recent years have witnessed marked changes in agricultural-credit methods. With the gradual development of business principles in the conduct of agriculture, which came with the passage of the frontier and the intervention of scientific farming, farmers have come to see that paying cash for fertilizer, seed, and other supplies saves money, even if the cash required has to be borrowed from the bank. The interest paid to the banks is, as a rule, substantially less than the amount of the discount on the price of the goods that is given for cash payment. In fact, the average cost of credit secured from merchants and landlords appears to be something like 25 per cent in the southern states.[4]

II. COMMERCIAL BANK LOANS FOR AGRICULTURE

The chart on page 625 indicates that the operating capital used in agriculture, in so far as it takes the form of funds rather than goods, is borrowed largely from the commercial banks. The gradual change in farm financial methods discussed above revealed that in many localities the banking facilities for mak-

[3] It was discontinued in 1919 by the International Harvester Co., in favor of cash sales, the farmers' growing affluence making the change possible.

[4] See, for example, "Farm Credits in North Carolina," *Bulletin of the North Carolina Department of Agriculture*, May, 1923.

ing short-time loans to farmers were not wholly satisfactory. Under the influence of long-established custom, many of the bankers regarded the farmers as unimportant borrowing constituents; too often the local bankers looked merely to local industries for their support. But the agitation on the subject of rural credits, both long- and short-term, which preceded the passage of the rural credit law in 1916, aroused the country bankers to the need of cultivating their agricultural constituents. The belief was widespread in farming circles at the time that both the national and state commercial banking systems were designed primarily to promote industrial and commercial activity, and that the farmers of the country were being sorely neglected. The very high rates currently paid by farmers for short-time loans seemed conclusive evidence on the point.

While the charge that the country bankers were neglecting agriculture was unquestionably greatly overdone—so far as short-time loans were concerned—there was, nevertheless, a measure of truth in the contention. In any event, fearing the loss of an important and rapidly developing borrowing constituency, as the farming communities became more prosperous with the era of rising prices that began in 1896, the country bankers have become assiduous in fostering cordial relationships with their farming constituents.

The extension of banking facilities throughout the small towns of the country and the growing interest of the banker in his rural constituents have been extremely significant events in the history of American agriculture, for the bankers are now in many places taking a vital interest in the improvement of both farming methods and rural life; and they are co-operating with the farmers in every possible way in furthering agricultural progress. Not the least important of the bankers' services lies in the dissemination of information on all phases of agricultural development. The "farmers' bank" is becoming a common institution in many regions; and the services that such a bank may perform in promoting the interests of agriculture are of incalculable importance.

The making of bank loans to farmers involves certain problems essentially different from those associated with commercial lending in the large financial centers. In the first place, the relations between banker and customer are, in the nature of things, personal rather than impersonal; in the second place, the farmer is seldom in a position to furnish even a rough statement of his financial condition; and, in the third place, there are greater uncertainties in agriculture than in most commercial or industrial lines, weather conditions being a determining factor. In consequence, agricultural lending is still largely conducted on "old-fashioned" banking principles. The banker drives out through the country and gets a birds'-eye view of the farm and of the condition of the crops; he inquires as to the amount and value of the live stock on hand; and in general keeps in touch with the character and habits and the political and financial activities of the borrower in question.

With the development of agricultural accounting, however, these methods are changing, though slowly; and it is not impossible that, under the conditions that will obtain when farming is eventually conducted on business-like principles, country-bank methods will be similar to those that now prevail in the larger financial centers.

The risks involved in agricultural loans is being reduced, not merely by the development of farm accounting and the general improvement in farm methods, but also by the growth of crop insurance. In the Northwest, for example, the bankers often insist upon hail insurance before credit will be extended. In the South, insurance against pests in connection with cotton and tobacco-raising is also beginning to be required.

Renewals of agricultural loans are very common.—Agricultural loans for working-capital purposes are usually extended by the banks for from four to six months, to coincide with the crop-growing period. Because of the uncertainties involved, both as to the time at which agricultural produce will be sold, and as to the amount of the returns—which depend both upon the size of

the crop and the price at which it may be sold—renewals of agricultural loans are extremely common. These renewals are, moreover, not merely temporary extensions; they are very commonly extensions which must be carried over for an entire year, until a subsequent crop shall have been garnered and sold. Indeed, it has been the rule, rather than the exception, that at least a part of the loans granted to farmers during the crop-growing period are carried over, extended for an indefinite number of years. This practice is in part attributable to the fact that the National Bank Act did not permit national banks to loan on the security of real estate mortgages, in consequence of which the national institutions—in order to meet the competition of the state banks—made loans for fixed-capital purposes to farmers merely on the security of their single or indorsed promissory notes. In the nature of things, such loans usually had to be extended for a long period of years.

In many cases, however, this constant renewal of loans merely betokened a continuous need of the farmer for borrowed working capital. While unable to pay off a year's loan in full, after meeting living requirements, the farmer was usually on the up-grade, financially speaking; and the banks were merely carrying him during the years of his adversity. In many other cases a bad year, or a series of them, necessitated continuous financial aid from the bankers. While one may reflect that such loose extension of credit constituted a very dangerous financial practice for commercial banks, it should be borne in mind as an extenuating circumstance that it appeared to the country bankers to be incumbent upon them to assist agricultural borrowers in times of adversity when they needed assistance most, quite as much as to extend them credit when their needs were less.

On the whole, it appears that such practice has not occasioned an extremely high mortality rate among country bankers. Like the banks of the commercial centers, the country institutions do not ordinarily rely upon maturing loans for the necessary liquidity of their assets; before the establishment of the Federal Reserve System they relied upon being able to get as-

sistance from correspondent banks in times of credit strain, through various methods, as outlined on pages 455–57. The responsibility for upholding the financial structure as a whole was thus placed upon the banks of the financial centers. Since the passage of the Federal Reserve Act, the country banks rely both upon rediscounting agricultural paper with the Federal Reserve banks and upon securing aid from city correspondent banks. The responsibility for tiding the country banks over an emergency has therefore been shifted, directly and indirectly, to the Federal Reserve institutions.

In view of the large number of country-bank failures during the last few years, the statement made that the length of loans and the practice of renewing them has not caused an extremely high mortality rate may, perhaps, be questioned. The truth of the matter is, however, that it was not the term of the credit that caused the failures; it was rather the great slump in agricultural values following the boom period of 1919–20. Agricultural credits would have been "frozen" just as much if the notes had all been made for three months as they were when made for six or nine months.[5]

B. Intermediate Credit

Natural conditions affecting agricultural production and marketing require that a considerable portion of agricultural loans must run for periods of from six months to three years. Before discussing the intermediate credit institutions which have recently been developed with a view to meeting these financial requirements, it will be desirable to consider the cattle loan company, an institution called into existence to meet the financial requirements of the live-stock industry.

I. THE CATTLE LOAN COMPANY

The modern cattle loan company, as it existed in 1920, was a development largely subsequent to the opening of the twen-

[5] See Claude L. Benner, *The Federal Intermediate Credit System*, chap. xi.

tieth century. It came into existence primarily to finance the growing of cattle on the ranges.[6] To a much lesser extent it served to finance the feeding of cattle on an extensive scale in the Corn Belt states. In brief, the cause of the development of the cattle loan company was the inability of local banks in the cattle-growing-and-feeding regions to supply the large volume of loans required by the cattlemen. Unlike ordinary agricultural operations, cattle raising is typically conducted on a relatively large scale, and the cattle-borrower accordingly requires loans of large average size—large enough to absorb the entire lending resources of most local banks. Banking laws which restricted the volume of loans that might be made to any one borrower, together with the fact that the financing of the cattle industry by the local banks would have resulted in an undue concentration of banking risks, made it necessary that the funds required in financing the raising of cattle be secured through financial institutions in the large money centers in the East. This the cattle loan company made possible, by acting as an intermediary between the borrowing cattlemen and the lending institutions in the financial centers.

Prior to the development of the cattle loan company, the cattlemen had to depend chiefly upon loans from state and national banks. There were, however, a few large commission firms located in the live-stock markets which loaned funds to the cattle industry. These agencies possessed no adequate machinery for a thorough investigation of prospective loans, or for careful supervision of loans once consummated. The losses accordingly proved very heavy and cattle paper was in bad repute for many years, the cattle industry meanwhile being handicapped by a dearth of funds. A somewhat more stable industry after the opening of the century and the development of better credit analysis in the making of cattle loans, however, gradually lessened the disfavor into which this class of paper had

[6] Sheep growing is also financed to a considerable extent by methods similar to those outlined in this section.

fallen. In fact, during the decade from 1910–20 cattle paper came to enjoy an enviable reputation among the banks of the large financial centers. In the latter part of the decade the advancing price of live stock and the increased costs of production made necessary the use of much larger amounts of money by cattlemen; and the number of cattle loan companies increased rapidly.

Two types of cattle loan companies were developed.—First, are those which are organized and officered by individuals who make this their sole business. Second, and more important, are the companies affiliated with state and national banks. The stock for these companies is subscribed by the directors and stockholders of the allied banks. Some of the officers and staff of the bank are, as a rule, also in active management of the cattle loan company. The purpose of this second type of organization is chiefly to permit the expansion of the bank's activities in ways that would not be permitted under the terms of their incorporation. Nominally an independently organized institution, such a company is in reality a department of an ordinary commercial bank.

Nearly all of the cattle loan companies are now located in the large packing centers, although there are several on the Pacific Coast. The affiliated companies are usually connected with the large live-stock national banks, located at the packing centers. These were formerly owned and controlled in many instances by some of the large packers, but owing to the financial difficulties following the world-war, several of these have passed into other hands. A location in a packing center has advantages in that the cattle can be inspected and the marketing of stolen cattle can more easily be detected. The packing centers are, moreover, the focal points of all important developments affecting the cattle industry, and hence the policy of the company can be adjusted more promptly to meet the changing conditions of the industry.

The two principal types of cattle loans are: (1) range

loans, and (2) corn-belt loans. The range loans, which give rise to the great bulk of cattle paper, may be subdivided into two classes: (*a*) loans on breeding herds, and (*b*) loans on stockers.

The purpose of the "breeder" loan is to finance herds of cows where the production of calves is the object in view. This type of loan resulted in enormous losses following the war, and is not looked upon with favor by most of the present companies. Since such loans are in the nature of fixed-capital operations, they should typically run for from two to three years, instead of six months, which is the standard term for cattle paper.

"Stocker" loans include loans on young stock to be grazed until more nearly mature and loans on mature steers during the final grazing period. In the latter case the "steers" are purchased in the spring, grazed in Kansas or Nebraska or the Dakotas, during the summer, then sold in the autumn to the packing-houses, or to feeders for further fattening. Loans of this type are sometimes referred to as "summer loans."

Range loans are largely found only in the western states. They are not as popular as feeder loans on account of the larger risks occasioned by uncertain feed, inclement weather, disease, and other hazards. The majority of ranches today, however, are fenced, and such loans made under proper supervision and on a conservative basis are reasonably safe.

Corn-belt loans are chiefly loans on beef steers ready to go on grain feed prior to their sale as finished beef. Such loans are regarded as particularly satisfactory in view of the fact that the cattle which constitute the security are to be sold for cash within a relatively short period of time, and because the value of the cattle naturally increases as the steers put on weight and improve in quality. Moreover, the dangers from inclement weather, disease, and accident are relatively small. Such paper ranks with the best class of commercial paper.

A distinct tendency to carry young cattle for a considerable period of time in the Corn Belt states has created what may be classed as "semi-feeder loans." Such loans are on younger stock,

which graze for some months before being put on grain feed; or which are carried over the winter on roughage and then fattened on grain in the spring and summer. On account of the attractiveness of corn-belt loans, a large percentage of them are taken directly by commercial banks, leaving only a relatively small amount that can be secured by cattle loan companies.

The loan company makes a careful credit analysis.—Before a loan is granted, the borrower is required to fill out a "form" statement furnished by the cattle loan company showing his assests and liabilities, the amount of insurance carried, etc., and giving a detailed description of all the cattle which he has available as security. The truth of the statement is attested before a notary public. Second, the borrower is required to fill out what is known as a "brand sheet," which gives in both illustrative and descriptive form the brand employed by the borrower. This permits identification of the cattle at any subsequent time; and it enables the lender to ascertain from the county clerk whether any previous loans have been made on these same cattle. Third, a careful investigation is made of the moral responsibility and financial ability of the borrower. Commercial agencies and special references are used as sources of collateral information; and particular attention is paid to the reports of the inspectors who are employed by the cattle loan company.

Finally, the borrower is required to sign a promissory note and give a chattel mortgage on the cattle, whether they are already in his possession or yet to be purchased. The reason for requiring the chattel mortgage is that the loan company is usually located at a considerable distance from the borrower, and since the cattle are "movable" property it would be easy for a dishonest borrower to dispose of them without the knowledge of the company. Further, inasmuch as the chattel mortgage is placed on record with the proper county authority, it constitutes legal notice to the public that by virtue of the mortgage the real title to the cattle rests in the loan company. Accordingly, any individual who purchases the cattle is responsible

for the payment of the loan. An added reason for the use of collateral security in the case of cattle loans, as in the previous cases where we have observed the depositing of collateral, is the convenience of the process. The cattle are intended to be kept during the life of the loan, and it is a simple matter to give a chattel mortgage against them.

Cattle paper is sold chiefly to the banks in the financial centers.—The loans range in size from one or two thousand to five hundred thousand dollars. Before 1920 the average loan was probably in the neighborhood of twenty-five thousand dollars; but the advance of agricultural settlement into the regions formerly given over almost entirely to cattle production is continuously tending to decrease the size of the average herd of range cattle, with the result that the average loan today is less than it was ten years ago. Cattle loan companies usually hold for investment only a very small number of the notes which they receive, the bulk of the paper being promptly transferred to the banks in financial centers.

Like the commercial paper houses, cattle loan companies usually advance the funds to the borrower before the paper is sold to banks. In order to do this, it is necessary for them to borrow large sums from commercial banks, using cattle paper as collateral. They are unlike commercial paper houses, however, in that they indorse the paper which they sell. The paper is sold to the city banks at rates somewhat below the rates which the borrowers pay. Prior to 1920 the spread between the rate paid by the cattlemen and the rate received by the banks which bought the paper fluctuated between 2 and 5 per cent, and on the average, it probably exceeded 2½ per cent. The spread varies from time to time with changes in money-market conditions, but the margin is commonly sufficient to make the cattle loan business a lucrative one. It should be understood that this difference in interest rates constitutes the principal source of the company's profits.

Large loans are usually broken up into notes of one-, five-,

or ten-thousand-dollar denominations, although sometimes a loan of fifty thousand dollars or more is sold to a single large investor. In such cases the investor is given a duplicate certified chattel mortgage. But where the loan is broken up into small denominations, each investor is given what is known as a "certified trust receipt of chattel mortgage." The purchaser of the cattle paper, however, always looks to the loan company for payment; and the companies assume the responsibility of collecting from the borrower.

Cattle loan companies have performed important economic services.—We have already seen that the local banks, as a rule, have possessed inadequate lending power for the needs of cattle growing and feeding and that access to the funds of financial centers has been indispensable to the continued development of this basic industry. The development of the cattle loan companies has undoubtedly stimulated the growth of the live-stock industry and in consequence the improvement of agriculture in general.

The cattle loan business was dealt a terrific blow by the collapse of live-stock values in 1920–21.—During the war and the period of post-war boom the cattle loan companies enormously expanded their operations, making hundreds of millions of dollars of cattle loans, based on enormously inflated live-stock values. Accordingly, the drastic decline in prices, coupled with a period of severe drought which ensued, necessitated the liquidation of vast quantities of cattle paper at prices which entailed such enormous losses that practically all of the companies that had sprung into existence during the preceding six years were wiped out. Only a relatively small number of the older and more conservatively managed companies survived. Inadequate credit analysis played a part in producing such wholesale failures; but the primary cause was the general inflation of values which was characteristic of the time and which also resulted in the failure of so many banks in the agricultural regions.

The failure of many of the cattle loan companies resulted

in passing a considerable portion of the loss on to the banks which had purchased the paper, and in consequence cattle paper again became very unpopular. It is interesting to note that the remaining solvent companies, somewhat chastened by recent experiences, are now as cautious as they had been imprudent five years previously. The general organization of the companies is, however, the same today as it was prior to 1920.

The cattle loan companies are permitted to rediscount their paper at the Federal Intermediate Credit banks.—Since the creation, in 1923, of the Federal Intermediate Credit System, cattle loan companies have been afforded improved connections with the financial centers of the country through articulation with the newer forms of agricultural credit institutions. As the chart on page 000 indicates, the cattle loan company is in an intermediary position, between the cattle men, on the one hand, and the Federal Intermediate Credit banks and the regular commercial banks, on the other. Their paper may now be rediscounted at the intermediate credit banks or sold to commercial banks in the larger financial centers, as the company may elect. The companies are thus much less dependent upon the surplus deposits of city commercial banks as an outlet for their paper than they were before. In other words, their position in the general credit system of the country has been strengthened.[7]

II. THE FEDERAL INTERMEDIATE CREDIT BANKS

The farmers' needs for intermediate credit are not confined to the live-stock industry. In fact, no small proportion of the farmers' agricultural loans must run for periods of more than

[7] At the present time, however, the Federal Farm Loan Board has ruled that such cattle loan companies as secure funds from the intermediate credit banks must dispose of all their paper at these banks. The purpose of the ruling was to prevent the cattle loan company, in the period of depression, from disposing of all their best paper with the banks of the cities, leaving only the poor paper for the intermediate credit banks. As a result, the cattle loan companies have thus far made very little use of the facilities offered by the intermediate credit banks. When the condition of the live stock industry improves, this ruling will no doubt be abrogated.

six months. Country banks have endeavored to meet this demand for credit by extending loans to the farmers for six months, and then renewing them when they came due. But since such loans often fell due at times when the country banks were short of funds, the farmers not infrequently found it impossible to obtain renewals and were in consequence seriously embarrassed in their operations. This was particularly true during the severe agricultural depression of 1920–21.[8] The unnecessary losses during this period proved so great that the agricultural interests insistently demanded the establishment of special rural-credit institutions whose sole function would be to furnish intermediate credit to agriculture. The failure of the cattle loan companies adequately to meet the financial needs of the live-stock industry contributed to this movement for rural-credit reform. As a result of the agitation, Congress passed the Agricultural Credits Act of 1923, establishing the Federal Intermediate Credit System.

The Federal Intermediate Credit System is patterned after the Federal Reserve System.—The central institutions of this system are known as Federal Intermediate Credit banks. These banks are established in the same cities as the twelve Federal Land banks and the districts for the Intermediate Credit banks are identical with those of the Federal Land banks. The officers and directors of the land banks are made ex officio officers and directors of the Intermediate Credit banks. In actual practice, however, special officers have been appointed to direct the work of the Intermediate Credit banks, and in every respect the accounts and records of the two institutions are kept separate. The Federal Farm Loan Board has supervision over the Intermediate Credit banks and exercises approximately the same control over these institutions as it does over the Federal Farm Land banks.

The Intermediate Credit banks are government institu-

[8] See Claude L. Benner, "Credit Aspects of the Agricultural Depression, 1920–21," *Journal of Political Economy* (1925), pp. 94–106, 217–33.

tions. Their establishment was made mandatory by Act of Congress, and the Secretary of the Treasury was directed to subscribe to their capital stock in such amounts as might be called for by the directors of the banks, not in excess of $5,000,000 for each bank. The United States government is and will remain the only stockholder in these institutions. Up to the present time, the Treasurer has turned over $2,000,000 to each of the Intermediate Credit banks. The balance of $36,000,000 is subject to call by the directors of the banks with the approval of the Farm Loan Board at thirty days' notice.

To secure such additional funds as may be needed in the conduct of their business, the Intermediate Credit banks are empowered to issue and sell collateral trust debentures secured by agricultural and live-stock paper. These debentures are held to be instruments of the government and they enjoy the same tax-free exemption as the Federal farm bonds. While each bank is liable for the principal and interest on its own debentures, it has a contingent liability for all the debentures issued by the other banks. At the close of 1924 the banks had outstanding debentures to the amount of $49,710,000.

The Intermediate Credit System was designed to fill the gap between the fields occupied by commercial banks and by investment companies.—The loans which may be made only for assisting the production or marketing of agricultural products and live stock must have a duration of not less than six months nor more than three years.

Discount rates are established by each Intermediate Credit bank with the approval of the Federal Farm Loan Board. However, such discount rate may not be in excess of 1 per cent over the coupon rate of the last issue of debentures. Further, no Intermediate Credit bank can discount loans for a local credit agency if such local agency charged its customers more than 1½ per cent above the rate it had to pay at the Intermediate Credit bank. In the case of live-stock paper the Farm Loan Board has made an exception to this general rule, allowing the local lend-

ing agency a margin of 2 per cent. The Intermediate Credit banks began their operations by charging discount rates of 5½ per cent. During 1924, however, on account of easy money-market conditions they were able to reduce their rates on direct loans to 4½ per cent and on rediscounts to 5 per cent.

The table on page 645 shows the loans and rediscount operations of the Intermediate Credit banks at the close of the second year of their existence. Loans are made only to the co-operative marketing associations, the advances to the various financial agencies being made by the rediscounting process.

Inasmuch as the Intermediate Credit Banks are central credit institutions operating throughout the whole country, it is impossible for them to make loans direct to farmers. In this regard they occupy somewhat the same position in the agricultural-credit field as the Federal Reserve banks do in the field of commerce and industry. The Federal Intermediate Credit banks furnish funds to agriculture through rediscounting agricultural paper for any of the following institutions: (1) national banks, (2) state banks, (3) trust companies, (4) savings institutions, (5) agricultural credit corporations, (6) incorporated live-stock loan companies, (7) co-operative banks, (8) co-operative credit associations. The farmers who may procure their loans direct from any of these institutions are thus given ready access to the central reservoirs of credit provided under this system.

The Intermediate Credit banks can make direct loans to co-operative associations, composed of persons engaged in producing or marketing agricultural products or live stock. The Agricultural Credits Act provides that such loans to co-operative marketing associations can be made to the extent of 75 per cent of the market value of the products they have stored in warehouses. In practice, however, the Farm Loan Board has restricted such loans to the extent of 50 per cent of the market value of the products securing the loan. Thus far the co-operative marketing associations have secured the greatest amount of funds from the Intermediate Credit banks. Of a total of $62,-

REDISCOUNTS AND LOANS OF INTERMEDIATE CREDIT BANKS, DECEMBER 31, 1924

District	National Banks	State Banks	Agricultural-Credit Corporations	Live-Stock Loan Companies	Savings Banks and Trust Companies	Co-operative Marketing Associations
Springfield	.....	.....	$ 254,798.90	.....	.....	$ 2,000,000.00
Baltimore	.....	$ 62,438.72	19,506.00	.....	$ 25,000.00	5,400,000.00
Columbia	$ 4,445.75	40,472.47	1,874,255.69	.....	.....	6,787,878.01
Louisville	.....	.....	.....	$ 2,719.94	.....	12,610,506.68
New Orleans	.....	.....	725,418.40	24,919.67	.....	4,400,000.00
St. Louis	.....	138,513.25	752,063.12	50,510.48	.....	833,619.91
St. Paul	.....	92,477.51	2,946,128.88	113,714.68	.....	1,731,474.12
Omaha	22,134.32	165,135.52	1,303,454.98	1,226,392,07	5,320.62	258,152.65
Wichita	.....	276,414.31	1,244,390.64	1,453,610.84	100,000.00	1,257,477.00
Houston	.....	33,737.00	578,078.00	3,298,307.01	39,025.88	2,000,000.00
Berkeley	.....	.....	26,220.84	298,613.58	.....	6,075,860.19
Spokane	.....	3,000.00	62,692.85	1,495,727.27	.....	152,472.20
Total	$26,580.07	$812,188.78	$9,787,005.30	$7,964,515.54	$169,346.50	$43,507,440.76

267,076 of loans outstanding on December 31, 1924, $43,507,-444 were to co-operative marketing associations.

State and national banks have thus far made comparatively little use of the rediscount facilities of the Intermediate Credit banks. At the close of 1924 the total advances to banks stood at $838,768. During 1925 this amount has steadily declined and on the first of June it was $678,365. The amount of advances made to agricultural-credit corporations has, however, steadily increased since the establishment of the Intermediate Credit banks until on June 1, 1925, it stood at $21,305,557, while the live-stock loan companies had borrowed $10,620,313. It appears that the Intermediate Credit banks are to have the greatest field of service with these institutions and with the co-operative marketing associations.

C. Long-Term Credit

I. THE NATURE AND EXTENT OF THE FARM MORTGAGE BUSINESS

The volume of borrowing by agricultural interests for fixed-capital purposes is not fully measured by the amount of mortgage and bonded indebtedness; for, as we have already seen, commercial and savings banks have made many loans to agriculture without collateral security. Farm mortgage indebtedness, however, assumed very large proportions in the years following the Civil War. According to the census report of 1890, out of a total number of 3,142,746 farms, cultivated by their owners, 886,957 were subject to incumbrance. There were in addition 1,624,433 tenant farms for which no data were collected. The aggregate value of the incumbered farms was $3,054,923,165; and the outstanding mortgages aggregated $1,-085,995,960, the three states of New York, Iowa, and Illinois together having almost one-third of the total. The ratio of mortgage indebtedness to the value of the farm varied among the different states, ranging from 24.23 per cent in Utah to 54.54 in Mississippi, and averaging 35.55 per cent for the country as a whole.

The table below indicates that the great majority of these mortgages were incurred for constructive purposes, that they were not, as is so commonly supposed, usually acquired as a means of relieving farmers' families from distress.[9]

While few such loans can fairly be placed in the "calamity" class, it is true, however, that during the long period of falling prices after the Civil War a considerable percentage of the mortgage loans that would ordinarily have been paid at the end of the three or five years for which they were contracted, were necessarily renewed.

CAUSES OF FARM MORTGAGE INDEBTEDNESS

Purpose of Borrowing	Percentage of Total Indebtedness
For purchase of real estate	64.38
For real estate improvement	4.53
For purchase of real estate and improvement thereof combined	5.31
For use in other business	1.95
For purchase of farm machinery, domestic animals, etc.	1.19
For farm and family expenses	2.83

As a matter of fact, farm mortgages usually increase during periods of agricultural prosperity and have a tendency to decrease during times when the farmer is less prosperous. Strange as this may appear at the outset, the causes for it are easily understandable. The farmers, like other business men, are anxious to expand their operations when their business is profitable, and consequently they borrow for this purpose more during good times than during hard times.

The growth of mortgage indebtedness in the United States is indicated by the following figures: The census report of 1910 indicated that, notwithstanding the great improvement in agricultural conditions that came with the era of rising prices beginning in 1896, the total mortgage indebtedness on farms operated

[9] Data taken from report on "Farms and Homes: Proprietorship and Indebtedness," *Eleventh Census of the United States*, 1890.

by their owners stood in 1910 at $1,726,172,851, an increase of 59 per cent in twenty years. In the same year the estimated mortgage indebtedness for all farms was $3,320,450,000. In 1920 the total mortgage indebtedness on farms operated by their owners was $4,003,767,192, while the estimate for all farm mortgages was $7,857,700,000—an increase of 131 per cent during the ten most prosperous years in our agricultural history. Between 1920 and 1925 it is estimated that farm mortgage indebtedness increased by about one billion dollars. This was mainly due to the issuing of farm mortgages and securities to liquidate bank loans contracted during the boom period.

II. INSTITUTIONS UTILIZED IN MARKETING FARM MORTGAGES

In discussing the raising of fixed capital for agricultural purposes it will be necessary to consider first the financial machinery employed before the organization of the Federal Farm Loan System, in 1916. The financial structure that had been developed up to that time is indicated in the chart on page 625; it includes everything on the fixed-capital side of the diagram except the National Farm Loan associations, Federal Land banks, and Joint Stock Land banks. It should be borne in mind that this rural-credit structure remains, even though a new agricultural-credit system has been devised.

While savings and commercial banks and trust companies often act as middlemen in the disposition of mortgages, as is indicated in the chart on page 625, the larger part of the farm mortgage business is handled by local farm mortgage brokers and by mortgage companies, comparable to the investment-banking institutions considered in chapter xiii. In the early days of farm borrowing the local mortgage broker was practically alone in the field. But as the farm mortgage business became more extensive, mortgage companies operating on a much larger scale and employing somewhat different methods have assumed a position of major importance.

1. *The local farm mortgage broker.*—The farm mortgage broker has his office in the center of an agricultural community and seldom extends the scope of his operations beyond the limits of a single county. His function is merely to bring the farm borrower and the city lender together; he does not advance any funds to the farmer or indorse the mortgage, which is made out directly to the purchaser. The profit of the farm mortgage broker is derived from the difference between the rate of interest which the farm borrower pays and the rate at which the mortgage is sold to the investor. In the early days, before the development of competing mortgage companies, the brokers commonly secured very large profits.

2. *The farm mortgage company.*—The mortgage companies conduct their operations on a much larger scale than do the brokers. Through a system of local agents they solicit mortgages throughout an entire state and in some cases in more than one state. They also utilize the independent mortgage brokers in getting in touch with borrowing constituents.

In making a mortgage loan under this system the prospective borrower fills out an application blank furnished by the local agent. This application usually calls for information upon the following points: (1) the amount of the property to be mortgaged that is under cultivation; (2) date of purchase; (3) the amount of present incumbrance, if any; (4) the nature and cash value of improvements that have been made on the land; (5) the present cash value of the land; (6) crops of the previous and current year; (7) the rental value; (8) the location of the land with respect to railroads, towns, schools, churches, etc.; (9) the assessed valuation and the amount of the tax thereon; (10) the amount of live stock on the premises; (11) the total valuation of the borrower's property, both real and personal; (12) the state of the title to the property; and finally, (13) the purpose for which the money is to be borrowed. The local agent of the mortgage company and two or more disinterested local residents are required to indorse on the application blank their

sworn appraisal of the value of the land. Upon receipt of the application the mortgage company sends an agent to inspect the property and make a report. If this report is favorable an agreement is reached as to the rate of interest and the commission, and the mortgage is then ready for sale. The rate of interest is usually the lowest that will insure the sale of the mortgage at par in the financial centers.

The commission received by the mortgage company is most frequently in the form of a lump sum deducted from the proceeds derived from the sale of the mortgage. But another common method is to make the commission payable, in the case of a five-year mortgage, in ten semiannual instalments secured by the borrower's notes and a second mortgage on the property. Under this method, in case any instalment is not paid, the entire commission automatically becomes due. The commissions received by the mortgage companies have been large, particularly in the earlier days; it is said that for many years such companies never received commissions of less than 10 per cent of the amount of the mortgage. It may be added that real estate mortgages usually run for either three or five years; and since the mortgages are very commonly renewed, additional commissions are commanded for securing extensions. Finally, it may be noted that, in addition to the commission received by the mortgage company, the local agent or broker charges the borrower whatever the traffic will bear!

In making loans the mortgage companies follow a method somewhat different from that of the local farm-loan brokers. The mortgage is commonly made out, not to the purchaser direct, but to the mortgage company, which assigns it to a purchaser when one is found. The mortgage companies sometimes guarantee the mortgages which they handle, and sometimes they do not. In the event of a foreclosure of a guaranteed loan, the company takes possession of the property and pays the borrower out of its own funds, recouping through the sale of mortgaged property. In the case of non-guaranteed loans, there is no liabil-

ity upon the mortgage company, but, nevertheless, it often assumes the debt and takes possession of the land. The purchaser of the mortgage is usually agreeable to such a procedure, for it relieves him of the trouble involved in making a settlement. It is said that large profits have been made by the mortgage companies from the sale of land taken under foreclosure proceedings.

There are numerous provisions designed to protect the purchaser of the mortgage. The borrower is required to assure the payment of the taxes and to keep the buildings insured for the benefit of the mortgagee. In case of a default in the payment of interest, or in the performance of any of the agreements, the lender may declare the entire debt immediately due. It may be added that if the borrower succeeds, in such a case, in securing funds with which to make up arrears and have the loan reinstated, the mortgage company receives a further commission or bonus for its service in reinstating the loan.

Many mortgage companies issue debenture bonds.—Instead of assigning the mortgages directly to investors many companies issue their own debentures, secured by the mortgages which the company has purchased. Such mortgages are assigned to a trust company, which holds them for the protection of the purchasers of the debentures. It should be noted that the purchaser also has a creditor claim against all the assets of the mortgage company, which are usually invested in mortgages. The holder of a mortgage that is guaranteed by a mortgage company is similarly protected by the company's own investments.

While the majority of the farm mortgage companies have always been managed by men of high integrity and conducted on sound business principles, the large profits obtainable in the business, particularly during periods of land speculation, have led to the organization of many irresponsible and dishonest companies. Such companies offer very high rates on mortgages on which they give their worthless guaranty. And in order to secure large commissions they make loans far in excess of the value of the land which is offered as security. Such practices, it is need-

less to say, result not only in inevitable loss to investors but also in discrediting the mortgage business in general.

Many of the farm mortgage companies have in recent years issued coupon notes and bonds in denominations convenient for the purchaser of small means, the mortgage being held "in trust" after the fashion of corporate mortgages. In some instances, also, the bonds run for long periods of time, rather than for three or five years merely, in which event the amortization principle of paying off the mortgage is usually incorporated.[10]

The farm mortgage companies have in recent years grown rapidly in number, size, and influence. They are now united in a Farm Martgage Bankers' Association of America, composed of about two hundred members, including banks and trust companies with mortgage departments. The purpose of the association is to raise the standard of mortgage-bank practice, promote constructive farm mortgage legislation, and oppose legislation regarded as inimical to their own and to the general welfare. For example, the association conducted a vigorous campaign against the Federal Farm Loan System.[11]

III. THE FEDERAL FARM LOAN SYSTEM

The agricultural-credit structure that has been described in the preceding pages was never regarded with favor by the farmers of the country. The interest rates that prevailed in many sections of the country were very high—in the view of the farmer exorbitantly high—while the commissions, legal fees, and renewal charges greatly increased the actual cost of the funds secured. This situation, together with the agricultural depression that prevailed more or less continusualy from the end of the Civil War until the late nineties, was in no small measure responsible for the greenback and free-silver movements of that period. While the general prosperity that began in 1897 and

[10] For an illustration of the amortization principle see p. 660.

[11] See pp. 668–70 for a discussion of the basis of the opposition to the Federal Farm Loan System.

continued almost uninterruptedly for a decade served to quiet for a time the farmers' discontent with monetary conditions, there nevertheless remained a deep-seated conviction that agriculture was seriously handicapped by virtue of inadequate credit facilities.

An insistent agitation for a reduction of rates on agricultural loans and for an improvement in the general conditions on which credit is extended to farmers began about ten years ago. At that time the movement for the establishment of a "panic-proof" commercial banking system was already well under way; and an improved agricultural-credit system appeared to be a necessary complement. The agitation was given a great impetus by the timely appearance of a number of striking articles, which indicated that farmers in many sections of the country were paying from 8 to 12 per cent for money, as contrasted with rates in our industrial centers of only 4 or 5 per cent. It was also pointed out repeatedly that farm loans in Europe could be secured in unlimited quantity at rates varying from 3 to 5 per cent.

While much of the agitation on the subject of rural credits is due to false assumptions and to an inadequate grasp of the principles governing the rates of interest on different classes of loans, there was unquestionably just cause for complaint. Because of an inadequate organization of credit machinery, agricultural loans bore unnecessarily high rates of interest; while the short term for which mortgages were made commonly necessitated the payment of additional legal fees and renewal commissions, for which there was no sound economic reason whatever.

As a means of affording relief, numerous proposals were advanced, the most popular of which was the making of government loans direct to farmers at merely nominal rates of interest, 1 or 2 per cent, the doctrine that the government should "do something" for agriculture, the nation's basic industry, always finding many eager adherents. Sounder ideas eventually prevailed, however, and the advocates of self-reliance and self-help

won the day. The ultimate outcome was the establishment in 1916 of a Federal Farm Loan System.

The Federal Farm Loan Act passed on July 17, 1916, marked the beginning of a new era in agricultural finance.—In brief, the purpose of the law is, through an improved organization of credit facilities, to raise the credit standing of farm borrowers, to reduce commissions and legal fees, to lessen and equalize interest rates, and to enlarge the supply of funds available for agricultural development. In pursuance of this task the law provides for the organization of (1) Federal Land banks and National Farm Loan associations; and (2) Joint Stock Land banks. The former constitute the distinctive feature of the rural-credit system; the provision for the latter marks an attempt to develop private mortgage companies under constructive governmental supervision.

1. *Administrative framework of the system.*—The rural-credit system is under the general supervision of the Federal Farm Loan Board, composed of the Secretary of the Treasury (ex officio) and six other members, appointed by the President with the approval of the Senate. The members serve for eight years and receive a salary of $10,000 per annum, together with necessary traveling expenses. The duties of the Farm Loan Board are analogous to those of the Federal Reserve Board and the Controller of the Currency in connection with the national banking system. In brief, they supervise the operations of Federal Land banks, Farm Loan associations, and Joint Stock Land banks; regulate interest rates and other charges on loans; supervise the issue of Farm Loan bonds; conduct examinations of the banks in the system; and publish annual reports, which show the condition of the various farm-loan institutions and present such additional data as may have a bearing upon agricultural credit in general.

The act provided that Continental United States should be divided into twelve districts, in each of which would be located a Federal Land bank. In creating these districts the organiza-

tion committee endeavored to group together, as far as possible, states of diverse character and development, as a means of minimizing the results of a crop failure in any one region. In determining the location of the farm-loan bank in each district the Board sought to secure (1) reasonable approximation to the geographical center of the district; (2) prompt and frequent train and mail service; (3) climatic conditions that would not impair the health of the officials; (4) congenial environment. As a rule, the larger cities were not selected; but rather those which had already shown an interest in agricultural development, or had been disappointed in not being selected as sites for Federal Reserve banks. The map on page 657 shows the district boundaries and the cities within which the Federal Land banks have been located.

2. *Federal Land banks.*—Each Federal Land bank is managed by a board of seven directors. Three of the local directors are elected by the farm-loan associations of the district; three are appointed by the Federal Farm Loan Board and represent the public interest in the Land banks; and the seventh one, who is designated a director at large, is appointed by the Farm Loan Board from a list of nominees submitted by the Farm Loan associations. The capital stock of each Land bank at the start was $750,000, divided into shares of $5.00 each. Although any person, firm, corporation, or state was permitted to purchase this stock, it did not prove attractive to these investors, and the Federal Treasury was forced to furnish the funds to start the banks.

3. *National Farm Loan associations.*—The Federal Land banks occupy a position in the rural-credit system similar to that of the Federal Reserve banks, while the National Farm Loan associations, authorized by the rural-credit law, may be regarded as analogous to the individual member banks of the Federal Reserve System. They differ from the member banks in one very important particular, however, namely, that they are co-operative associations organized by a group of farmers for the specific

purpose of securing credit through the Federal Land bank; they are not privately organized institutions conducting a general banking business, as is the case with the units of the Federal Reserve System.

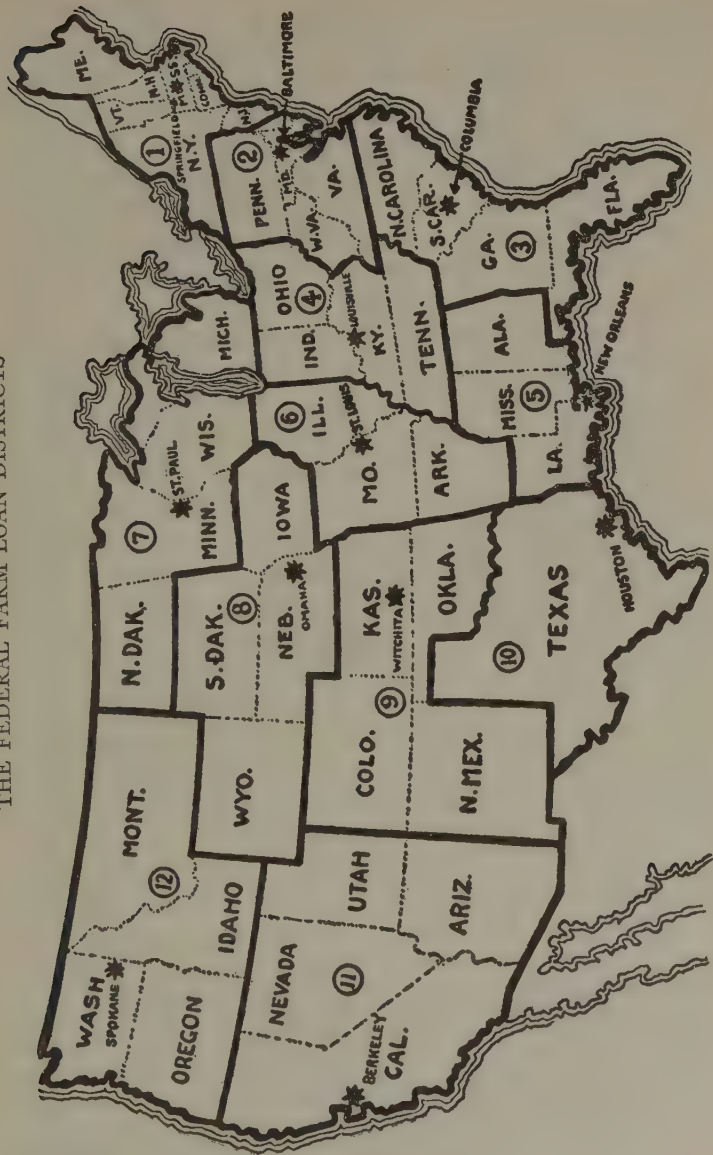
The law provides that "ten or more natural persons who are the owners, or about to become the owners, of farm land qualified as security for a mortgage loan under this Act," may unite to form such a National Farm Loan Association. No persons, except borrowers on farm-loan mortgages, may become members or borrowers. The management of the association is vested in a board of five directors. The capital stock varies with the volume of loans secured, one share of stock being issued for every loan of $200 (or major portion thereof). Thus the borrowers may receive dividends in case any are earned by the association. The shareholders are "held individually responsible, equally and ratably, and not one for another," for all debts and obligations to double the amount of their stock-holdings.

4. *Method of making loans.*—When an application for a loan is submitted to a National Farm Loan Association, a loan committee of the association appraises the value of the property and makes a detailed report on the project. No loan may be approved by the directors of the Farm Loan Association unless all three members of the loan committee recommend it; and before the loan is finally granted, it must also be approved by an appraiser of the Federal Land bank from which the funds are to be secured.

In case the loan is approved, the Farm Loan Association subscribes for capital stock in the Federal Land bank of its district to an amount equal to 5 per cent of the loan desired; the stock is hypothecated with the Federal Land bank as partial collateral security for the loan. The Farm Loan Association then indorses a first mortgage, which it has received from the borrowing member, over to the Federal Land bank, thus assuming a secondary liability for the payment of the obligation.

The Federal Land bank advances the funds to the Farm

THE FEDERAL FARM LOAN DISTRICTS



Loan Association and issues its own debentures known as "farm-loan bonds," for sale in the general investment market. These bonds are issued only under specific authorization of the Federal Farm Loan Board. For purposes of administration each district has a Farm Loan Registrar (corresponding to the Federal Reserve Agent of the Federal Reserve System), appointed by the Federal Farm Loan Board. When any Federal Land bank desires to issue bonds, it must deposit the mortgages which have been taken from borrowers with the Registrar, to whom they are assigned in trust as collateral for the bonds.

The mortgage must always be a first lien on property owned by the borrower, and cannot exceed 50 per cent of the value of the land for agricultural purposes, and 20 per cent of the value of the permanent insured improvements. Incidentally, individual loans may not be for less than $100 or for more than $25,000 in amount, and a charter may not be granted to any Farm Loan Association unless the total of loans applied for is at least $20,000. No loans shall be made to any person who is not at the time, or shortly to become, engaged in the cultivation of the farm mortgaged; and the borrowing must be for one of the following purposes: (*a*) to provide for the purchase of land for agricultural purposes; (*b*) for the purchase of equipment, fertilizers, and live stock necessary for the proper and reasonable operation of the mortgaged farm; (*c*) for buildings and improvement on farm land; and (*d*) to liquidate indebtedness incurred for purposes (*a*), (*b*), and (*c*).

Loans are made only on the amortization principle.—Added security is afforded the lender by virtue of the fact that all loans must be discharged through amortization payments. Under this method each annual or semiannual payment by the borrower *must* include, besides interest on the loan, such an additional fund as will amortize, or liquidate, the debt within an agreed period, not less than five years nor more than forty years. It is also provided that, after five years from the date of the loan, additional payments of $25, or multiples thereof, *may* be made;

or, if the borrower desires, he may pay off on any instalment date the entire remaining principal. The table on page 660 shows how a $1,000 loan at 5½ per cent interest may be amortized in thirty-five years by means of annual instalments of $65, which includes interest and a partial payment on the principal. Thirty-five years is recommended by the Board as a preferable duration for agricultural loans.

It will be seen that under this system the margin of security back of the loan gradually increases. The amortization system also has the very decided advantage that it enables the borrower to pay off the loan out of current funds, with the result that he scarcely feels the burden of discharging the obligation. Under the old system of three- and five-year mortgages, the farm borrower usually made no preparation for payment until the mortgage was about due; whereupon the preparation commonly consisted in merely making arrangements for a necessary renewal, involving, as we have seen, substantial additional legal fees and commissions. Under the amortization plan the farmer is, in effect, compelled to save enough each year to provide for the eventual liquidation of the debt. The amortization system is analogous to the provision of a sinking fund for the liquidation of corporate indebtedness.[12]

Every farm mortgage bond is the obligation of all the Federal Land banks.—The bonds that are issued against the farm mortgages as collateral are the direct obligation not only of the Federal Land bank that issues it but of the entire twelve Land banks, jointly. Since the investments of these banks necessarily consist primarily of real estate mortgages and since, for the system as a whole, these mortgages are drawn from every part of

[12] It should be observed, however, that while the theory has always been that provision should be made for the liquidation of fixed-capital loans when they mature, it has been a very common practice, notably in the transportation industry, for the fixed-capital indebtedness to be renewed rather than paid. Indeed, it can almost be said that the tendency is for the fixed-capital indebtedness of corporations gradually to increase rather than decrease in amount as the age of the corporation increases.

the country, it will be seen that the risks of the Federal Land Bank System are very widely distributed. The law also pro-

AN AMORTIZATION TABLE*

Payment No.	Instalment	Interest	Applied on Principal	Principal Still Unpaid
1	$65.00	$55.00	$10.00	$990.00
2	65.00	54.45	10.55	979.45
3	65.00	53.87	11.13	968.32
4	65.00	53.26	11.74	956.58
5	65.00	52.61	12.39	944.19
6	65.00	51.93	13.07	931.12
7	65.00	51.21	13.79	917.33
8	65.00	50.45	14.55	902.78
9	65.00	49.65	15.35	887.43
10	65.00	48.81	16.19	871.24
11	65.00	47.92	17.08	854.16
12	65.00	46.98	18.02	836.14
13	65.00	45.99	19.01	817.13
14	65.00	44.94	20.06	797.07
15	65.00	43.84	21.16	775.91
16	65.00	42.68	22.32	753.59
17	65.00	41.45	23.55	730.04
18	65.00	40.15	24.85	705.19
19	65.00	38.79	26.21	678.98
20	65.00	37.34	27.66	651.36
21	65.00	35.82	29.18	622.14
22	65.00	34.22	30.78	591.36
23	65.00	32.52	32.48	558.88
24	65.00	30.64	34.36	524.62
25	65.00	28.85	36.15	488.47
26	65.00	26.87	38.13	450.34
27	65.00	24.77	40.23	410.11
28	65.00	22.56	42.44	367.67
29	65.00	20.22	44.78	322.89
30	65.00	17.76	47.24	275.65
31	65.00	15.16	49.84	225.81
32	65.00	12.42	52.58	173.73
33	65.00	9.53	55.47	117.76
34	65.00	6.48	58.52	59.24
35	62.50	3.76	59.24	.....
	$2,272.50	$1,272.50	$1,000.00	

*Treasury Department, *Federal Farm Loan Bureau Circular No. 7*, p. 9.

vides that of the capital of the Federal Land banks for which stock is outstanding in the name of Farm Loan associations, 25 per cent must be held as quick assets, in the form of cash in

vault, deposits in member banks of the Federal Reserve System, or in readily marketable securities approved by the Federal Farm Loan Board. Of these, not less than 5 per cent must be United States government bonds. Each Federal Land bank—given conservative management in conformity with the law—is therefore practically certain to be in a position to meet its obligations as they mature. Certainly there would appear to be little chance that the system as a whole would not be able to meet its obligations in full.

The maximum interest rates that may be charged by any Federal Land bank is 6 per cent. It is also provided that in no event shall the rate charged to borrowers exceed by more than 1 per cent the rate of interest on the bonds issued by the banks themselves. That is to say, if the Federal Land bank should sell bonds bearing a rate of 4 per cent, it could not charge the farm borrowers more than 5 per cent. It is important to note in this connection that principal and interest are expressly exempted from all federal, state, and local taxation.[13] Legal fees and recording charges are also paid by the borrower; but they are much less in amount than under the old system of unregulated private lending.

When the farm-loan system began operations, the bonds bore an interest rate of 4½ per cent, the farmer paying 5 per cent. The rise in interest rates during the war, however, made it necessary to raise the rates to 5½ per cent, with the farmer paying 6 per cent, leaving, as before, one-half of 1 per cent to cover expenses incurred by the Federal Farm Loan banks. They are now once more at 5 per cent to the farmer; at this figure the farmers are able to borrow at as low rates as high-grade industrial, public-utility, and other business enterprises.

5. *The Joint Stock Land banks.*—These institutions were incorporated in the Federal Farm Loan System for the purpose of placing private mortgage business upon a more efficient basis. It was expected that a considerable number of the private mort-

[13] This fact has given rise to bitter controversy. See below, p. 669.

gage companies would reorganize as Joint Stock Land banks. The position of the Joint Stock Land banks in the agricultural structure is analogous to that of the Federal Land banks, although, as the chart on page 00 indicates, they make their loans direct to the farmers. The essential difference between the Federal Land banks and the Joint Stock Land banks consists in the fact that the former are mutually owned banks, established for the purpose of giving the farmers mortgage credit at cost, while the Joint Stock Land banks, although under government supervision, are private institutions operated for a profit.

These banks must have at least ten incorporators, and the government may not be a stock subscriber. The minimum capital required is $250,000, one-half of which must be paid up before beginning business, and the rest before any bonds may be issued. Instead of a board of nine appointed and elected directors, they have a board of their own choice, not less than five in number. The size of the loan granted to any one person is limited by the rules of the Farm Loan Board to $50,000, and the purposes for which the loan may be made, are left to the discretion of the Joint Stock bank. The total amount of bonds that may be issued is restricted to fifteen times the amount of the capital stock of the issuing bank, as compared with twenty times in the case of the Federal Land banks.

Like the Federal Farm Loan bonds, the Joint Stock Land bank bonds must be secured by first mortgages on land and improvements, the margin of security being identical in both types of bonds. The mortgages back of the Joint Stock Land bank bonds must be deposited in trust with the Federal Farm Loan Registrar, and the loans must be paid on the amortization plan. The main difference between the two types of securities lies in the fact that the Joint Stock Land bank bonds are an obligation only of the issuing institution, whereas the Federal Farm Loan bonds, as already seen, are the joint and several obligations of the twelve Federal Land banks.

State governments have also been interested in rural-credit

legislation.—During the past few years fifteen states have enacted laws designed to improve agricultural-credit facilities. Most of these laws have made it possible for the states to loan the farmers on first-mortgage security their permanent school funds. However, the states of South Dakota and Minnesota have gone farther than this. These states have enacted rural-credit laws which are designed to substitute for the farmer's credit the credit of the state. Under these plans, the state goes into the farm mortgage banking business the same as does the private individual. It sells its own bonds and loans the funds to the farmers at cost. The state makes the loan, takes the mortgage, and assumes the risk of payment. A rural-credit bureau has been established, whose purpose is to supervise these loan operations. The South Dakota Rural Credits Bureau has loaned approximately $45,000,000, and the Minnesota Rural Credits Bureau has loaned $37,000,000. These two state systems practically duplicate the work of the Federal Farm Loan System, and it is very doubtful if they have a necessary place in our rural-credit structure.

The Federal Farm Loan System has had a consistent growth.—On December 31, 1924, there were 4,645 National Farm Loan associations in actual operation. These associations had made 339,970 loans to a total amount of $1,042,001,148, an average loan of $3,065. The loans were secured by mortgages on 59,894,254 acres of land, having an appraised valuation of $2,683,907,101. Although the Federal Land banks have been in operation only approximately six years, they have increased their capitalization from $9,000,000 to $49,582,045; and they have had net earnings amounting to $25,837,702, out of which they had paid approximately $11,000,000 in dividends. The remaining net earnings have been used to create a reserve for contingencies.

It is interesting to observe that from the date of organization in 1916 to December 31, 1924, the twelve Federal Land banks and the Joint Stock Land banks have had to institute foreclosure

proceedings on 5,136 farms, involving principal and accrued interest to the amount of $21,906,550. These foreclosure proceedings have practically all been instituted during the past two and one-half years, and of those that have been settled thus far the banks have only suffered a net loss of $1,666. At the present time there are 1,175 cases pending.

There follows a consolidated financial statement of the assets and liabilities of the Federal Land banks at the close of the year 1924.

CONSOLIDATED STATEMENT OF FEDERAL LAND BANKS

ASSETS

Net mortgage loans	$927,567,597.78
Interest accrued on mortgage loans	14,891,652.93
United States government bonds and securities	28,550,360.54
Interest accrued on bonds and securities	313,744.55
Other interest accrued	104.55
Cash on hand and in banks	12,183,807.29
Notes receivable, acceptances, etc.	1,262,612.15
Accounts receivable	836,953.82
Instalments matured (in process of collection)	1,773,831.33
Banking houses	1,892,646.34
Furniture and fixtures	263,415.29
Other assets	2,480,586.10
Total assets	$992,017,312.67

LIABILITIES

Farm-loan bonds outstanding	914,763,416.25
Interest accrued on farm-loan bonds	10,808,785.51
Notes payable	54,093.70
Accounts payable	32,333.40
Due borrowers on uncompleted loans	515,085.44
Amortization instalments paid in advance	1,846,783.90
Farm-loan bond coupons outstanding	2,214,818.30
Dividends declared but unpaid	949,985.15
Other liabilities	713,886.65
Total liabilities	$931,899,188.30

NET WORTH

Capital stock, United States government	$ 1,670,965.00	
National Farm Loan associations	47,524,335.00	
Borrowers through agents	385,160.00	
Individual subscribers	1,585.00	
Total capital stock	$49,582,045.00	
Reserve (legal)	6,563,500.00	
Surplus, reserves, etc.	104,550.00	
Undivided profits	3,868,029.37	
		60,118,124.37
Total liabilities and net worth		$992,017,312.67

MEMORANDA

Net earnings to Dec. 31, 1924		$ 25,837,702.52
Less:		
Dividends paid	$10,766,941.69	
Carried to suspense account	1,125,582.38	
Real estate charged off	3,409,099.08	
		$ 15,301,623.15
Carried to surplus, reserves, etc.	$ 104,550.00	
Carried to reserve (legal)	6,563,500.00	
Undivided profits	3,868,029.37	
Total reserves and undivided profits		10,536,079.37
Capital stock originally subscribed by United States government		8,892,515.00
Amount of government stock retired		7,221,550.00
Capital stock held by United States government		$ 1,670,965.00

The statement on page 666 shows the amount of loans applied for and granted up to November 31, 1924, segregated by districts, and the number of acres mortgaged.

Numerous Joint Stock Land banks have been organized.—On December 31, 1924, the total number of Joint Stock Land banks in operation was sixty-four. These banks had a total capitalization of $34,487,185, together with a surplus of $1,239,000.

They had extended mortgage loans to the amount of $467,984,667 and had total assets to the amount of $491,478,690. During 1922–23 the growth of the Joint Stock Land banks was very rapid, increasing from twenty-six to seventy-two. Since then several of these banks have consolidated, and it is the policy of the Federal Farm Loan Board to decline the further issuance of

LOANS OF THE FEDERAL FARM LAND BANKS

Districts	Number of Borrowers	Amount Applied For	Amount Granted	Total Acres Mortgaged
Springfield....	11,826	44,527,138	37,244,940	1,476,132
Baltimore.....	19,757	62,170,505	53,497,314	2,664,961
Columbia.....	26,674	80,981,795	60,348,973	3,926,338
Louisville.....	28,863	106,898,641	95,737,070	3,292,001
New Orleans..	47,402	109,482,176	91,661,092	7,890,588
St. Louis.....	27,130	80,647,348	71,736,610	3,330,504
St. Paul.....	32,804	129,549,494	117,847,600	5,187,833
Omaha.....	21,861	131,948,511	117,006,600	6,157,053
Wichita.....	26,964	97,565,648	82,424,505	8,292,289
Houston.....	36,263	126,347,245	106,033,969	10,112,095
Berkeley.....	12,668	50,858,801	43,768,079	1,295,627
Spokane.....	32,960	117,308,327	99,454,966	6,268,833
Grand total.	325,172	1,138,285,629	976,761,718	59,894,254

charters to these banks unless it can be shown that the territory they wish to serve is not sufficiently taken care of by existing banks.

IV. SIGNIFICANT RESULTS OF THE FEDERAL FARM LOAN SYSTEM

The organization of the Federal Farm Loan System has accomplished three important results: first, it has equalized farm interest rates throughout the country; second, it has enabled the farmers as a whole to borrow at lower rates than would otherwise have been possible; and third, it has broadened the scope of the market for agricultural securities. The foregoing description of the system furnishes all of the information necessary for understanding how each of these results has been made possible.

The equalization of interest rates has been accomplished by means of the provision which makes Federal Land bank bonds the obligation of all the Land banks, jointly and severally. It will be readily seen that so long as every bond is the obligation of all the banks, the investor, resident in a financial center, has no good reason for discriminating against the bonds of any district, however remote it may be; from his viewpoint, the bonds of each district are exactly as good as those of every other district. It should be noted, however, that this does not apply to the Joint Stock Land bank bonds; for they are the obligations of the issuing bank only.

The lowering of farm interest rates has been made possible by means of the co-operative borrowing and the improved organization of credit information for which the system provides. Under the private mortgage system the primary reason for the high interest rates in remote agricultural regions is the lack of reliable information on the part of the lender as to the character of the borrower and the adequacy of the property offered as security. Because of the distance involved, the lender has to rely upon the recommendation of the local farm mortgage broker or upon the uncertain appraisal of the local agent of a mortgage company.[14] Under the Federal Farm Loan System the lender relies upon the appraisal of a group of farmers organized in a co-operative Farm Loan Association, checked by an independent appraisal of an agent of the Federal Land bank.

Moreover, as we have already seen, the payment of the loan does not depend upon the character and financial standing of a single individual borrower; for the loan is the joint obligation of a group of borrowers and of the twelve Federal Land banks. Aside from the risks that inhere in distance and the consequent lack of reliable information there is, in fact, no good reason why a group of farmers, say, in Texas, borrowing $25 per acre on land valued at $50, should not secure funds at as low a rate of interest as a group of farmers in Illinois borrowing $100 an

[14] See above, p. 650.

acre on land valued at $200. Under the Federal Farm Loan System such risks have been eliminated.

Through the substitution of bonds of small denomination for the single mortgage of relatively large size, the market for agricultural securities has been broadened, and the volume of capital available for agricultural investment consequently increased. Individuals with small as well as with large resources may now invest in agricultural securities without unduly concentrating risks. Moreover, the development of high-grade agricultural bonds, which in time will no doubt possess a high degree of marketability, gives greater flexibility to the system of agricultural finance and thus serves to stimulate agricultural investment. By means of the machinery provided by the rural-credit legislation the farmers of the country have in fact been placed in a position where they can enter the investment market on better than even terms with corporate industry.[15] Indeed, one may say that the rural-credit system has, from the viewpoint of raising capital, "corporationized" agriculture.

V. CRITICISMS OF THE FEDERAL FARM LOAN SYSTEM

There have been, as was to be expected, some minor criticisms of certain provisions of the rural-credit law and some of its administration by the Federal Farm Loan Board and Land bank officials. While these are not of sufficient importance to warrant discussion here, there have been two criticisms of such significance that they do call for consideration. The first is that the present Farm Loan System does not accomplish the main purpose which the rural-credit agitation had in view, namely, that of making it easy for farm tenants and other landless people to became farm-owners. The second is that the provisions of the law exempting Federal Land banks and Joint Stock Land bank bonds from taxation is perversive in its general economic and social effects.

[15] But see criticism on pp. 669–70.

Those who believe that the greatest evil of the American agricultural system is the rapid increase of farm tenancy naturally hold that the Federal Farm Loan Act, which is primarily designed to assist existing landowners in making improvements upon their lands or in purchasing additional acres, has missed fire. Granted that the purpose of the act was to decrease tenancy, this criticism is undoubtedly well founded; for the present law certainly does not render essentially easier the acquisition of farm land by those who are at present dispossessed. On the other hand, there are those who contend that the present act was never intended to eliminate farm tenancy, and that this evil must be remedied by other means.

The second criticism of the system—that against the tax exemption provisions of the law—would never have arisen except for the passage of progressive income-tax legislation during the war period. As matters now stand, however, a 5 per cent Federal Farm Loan bond is an exceptionally good investment for people with large incomes. It will be seen that, since the heaviest taxes are levied on the larger incomes, the tax exemption of bonds is of greatest benefit to individuals receiving the highest incomes. And the truth is that these bonds are being purchased in wholesale quantities by men of very large means, who thereby escape the payment of a substantial portion of their federal taxes.

The controversy over the tax exemption of the farm-loan bonds was keen from the very beginning of the system. The Farm Mortgage Bankers' Association took the position that it was unfair to private mortgage bankers to permit the Federal Land banks and the Joint Stock Land banks to secure the funds with which they operated through the sale of tax-exempt securities. This they insisted gave these institutions an unfair advantage in competition with private companies. In the summer of 1919 the opponents of the Federal Farm Loan System succeeded in tying up the system in court litigation. The constitutionality of the Federal Farm Loan Act was challenged on the

ground that Congress had exceeded its authority in creating these banks with power of issuing tax-exempt bonds. The case was carried to the United States Supreme Court, where on February 28, 1921, the Court upheld on all points the constitutionality of the Act.[16]

While there may be little economic justification for the tax-exemption features of the law, no student of agricultural finance would wish to see the Federal Farm Loan System abolished. This system has established order and regularity in the field of mortgage finance much in the same manner that the Federal Reserve System has performed the same service in the field of commercial banking. Considering the fact that this system was established at the beginning of the world-war, that it was involved in litigation that held up its operations for over a year, and that it has come safely through one of the severest agricultural depressions in our history, its record is all that could have reasonably been expected.

EXERCISES AND QUESTIONS

I. GENERAL CONSIDERATIONS

1. Compare the chart on page 625 with those on pages 163 and 165, and note the significant differences in financial structure that have developed.
2. In how many different ways may the fixed capital used in agriculture be secured? What are the sources of intermediate credit? of working capital?
3. In what ways are the commercial banks related to the farm mortgage business? In what ways the trust companies?
4. What is the advantage in the co-operative credit union as a means of securing funds for agricultural purposes?
5. Show how the advent of marketing through co-operative associations has increased the farmers' needs for bank credit?
6. When a bank makes loans to a farmer to purchase seed and fertilizer, and to pay for hired help during the growing season, is it making what is equivalent to a commercial loan? What is the security for such a loan? Is any mortgage required?
7. If a farmer borrows from a bank in order to purchase farm machinery, such as plows, harrows, and harvesting machines, would you say that

[16] *Smith* v. *Kansas City Title & Trust Co., et al.*, 255 U.S. 180.

he is getting long-term, short-term, or intermediate credit? Should collateral be required for such loans?

8. Are the risks inherent in the nature of the industry greater or less in farming than in manufacturing or mercantile lines, that is to say, is a good crop more or less certain than good sales by a merchant or manufacturer?
9. Do you think the average farmer is as good a personal risk as the average merchant or manufacturer?
10. What can the farmers do to minimize the risks involved in connection with their loans?

II. TRADE CREDIT

11. What is the basic objection to the system of trade credit extended by the local store?
12. Is the extension of credit by the landlord to the tenant in any way less objectionable than store credit?
13. How do you account for the development of the practice whereby produce-dealers, canning factories, etc., make loans to agricultural producers? Do you approve of the practice?
14. Criticize the system of credit extension practiced by the manufacturers of farm implements.
15. If you were a farmer would you make any use of trade credit? If so, why, and under what circumstances?
16. Show how the commercial banks are related to the extension of trade credit.

III. COMMERCIAL BANK LOANS

17. State in what ways the problem of making bank loans to farmers differs from that of making loans to mercantile and manufacturing customers in the cities.
18. Why are agricultural loans so frequently renewed? In your judgment is this an objectionable banking practice? Why, or why not?
19. On the whole, do you think the working-capital requirements of agriculture can be satisfactorily met through securing loans from commercial banks?
20. Which would you prefer to have, agricultural loans secured by mortgages on real estate, payable in five years, or the unsecured promissory notes of farmers due in six months, but indefinitely renewable?

IV. CATTLE LOAN COMPANIES

21. What has been the necessity for a special type of institution for financing the cattle industry?
22. Do you see any objection to the affiliation of a cattle loan company with a state or national bank?
23. If you were engaged in the cattle loan business, how would you

classify the various types of cattle loans from the standpoint of desirability? What is your test of desirability?

24. What is the purpose of the "brand sheet" used by the cattle loan company? of the "form statement"?
25. What is the purpose of the chattel mortgage on the cattle?
26. How is it possible in the case of feeder cattle for a loan to be made with safety to 90 or 100 per cent of the value of the cattle at the time they are mortgaged as security?
27. Who really supplies the funds used by cattle growers and feeders?
28. Contrast the work of the cattle loan company with that of the commercial paper house. With that of the discount or commercial credit company.
29. What is the source of the cattle loan company's profits?
30. What is the chief purpose of the "certified trust receipt of chattel mortgages"?

V. INTERMEDIATE CREDIT BANKS

31. What were the chief arguments for the establishment of the Intermediate Credit banks?
32. Show how the Federal Intermediate Credit System is a government banking system to a larger extent than either the Federal Reserve System or the Federal Farm Loan System.
33. Why is it not practicable for the Intermediate Credit banks to make direct loans to the farmers?
34. Show how the operations of the Intermediate Credit banks have widened the market for agricultural paper.
35. Why is it safe for the Intermediate Credit banks to make direct loans to co-operative marketing associations?
36. Explain how the Intermediate Credit banks are a force making for lower interest rates in capital-deficit farm areas.
37. What economic justification is there for limiting the interest rate that local lending agencies may charge the farmers on funds secured from the Intermediate Credit banks? Show how this restriction operates to keep local credit agencies from taking full advantage of the facilities of the Intermediate Credit banks.
38. What are the chief characteristics of the debenture? Show how this credit instrument is peculiarly adapted for agricultural credit needs.
39. What is the relation of the Federal Intermediate Credit banks to the Federal Reserve banks?
40. Has the establishment of the Intermediate Credit bank insured the farmers against another rural-credit stringency?

VI. FARM MORTGAGE BORROWING

41. "Doubtless you all remember having seen a picture of a gnarled hand hanging over an humble farm cottage as a horrid symbol of the dead

pledge or mortgage. I believe that this popular idea of the mortgage has changed during the past generation. The average intelligent progressive farmer now regards the farm mortgage as a blessing, at least in retrospect." If so, why?

42. Is there any more sympathy due a farmer who mortgages some land as a means of adding to his capital than is due a railroad company that issues bonds and gives a mortgage on the railway property?
43. For how long should farm mortgage loans run as a rule? Is there any justification for three- and five-year loans, which have been the common form?
44. "Every community should be financially self-sufficient. Those who need to borrow should be able to do so from people within the community who have funds to loan. The function of mortgage banks and brokers should merely be to bring these parties together." Do you agree with this principle? Is it possible to work it out in practice?
45. What is the relation of the farm mortgage company to the individual mortgage broker?
46. How do you account for the fact that farm mortgage banks have not been subjected to government regulation as have commercial and savings institutions? Do you think they ought to be subjected to governmental supervision?
47. How do you account for the wide variation in the rates on farm mortgage loans that existed in the United States before the adoption of the Federal Farm Loan Act?
48. What items other than interest go to make up the inclusive costs of mortgage loans?
49. "The difference in the rate of interest paid by the Texas farmers and those of foreign countries in twenty years would macadamize every road in Texas." Does this indicate that the farmers of Texas should be granted loans at 3 or 4 per cent?
50. "The whole trouble with land credit conditions today—and that means the dearth of money, the rate of interest, and so on—is nothing but the consequence of an insufficiency of market for the security which the farmer offers, and the reason for this insufficiency of market is not only the form in which farm loans are usually offered, but also the variety of other securities, with which the American market is clogged, quite in contrast to the European market, which is comparatively free from municipal and railroad and also some classes of public-utility securities." What do you think of this contention?

VII. THE FEDERAL FARM LOAN SYSTEM

51. What were the chief arguments for the establishment of the Federal Farm Loan System?

52. Why was it necessary in organizing the Federal Farm Loan System to provide for the formation of Farm Loan associations?
53. What is the purpose of the Joint Stock Land banks?
54. What is likely to be the ultimate effect of the Federal Farm Loan System upon the private mortgage business? Why?
55. Have you any criticisms to make of the machinery devised under the Federal Farm Loan System for negotiating a loan and safeguarding the position of the lender?
56. What are the advantages of the amortization method of making payments: (*a*) to the purchaser of the farm mortgage bonds; (*b*) to the borrower?
57. What is the reason for the provision of the Federal Farm Loan Act that amortization payments need not be made for the first five years of the loan?
58. Do you think thirty-five years is, as a rule, the most desirable length of time for a farm mortgage to run?
59. Explain how the Federal Farm Loan System has tended to equalize interest rates. Does this involve what amounts to a tax on certain districts for the benefit of others?
60. Do you agree with the contention often advanced that there was no real need for establishing additional agricultural-credit machinery for the benefit of those who already own farms?
61. "The increase of farm tenancy cannot be checked by merely providing purchase money on easy terms to farm tenants." Why, or why not?
62. "In the light of the changes in interest rates that have occurred during the war, the Federal Farm Loan Act has placed the farmer in a much better borrowing position than that of industrial and commercial interests. This is not fair to the industrial and commercial borrowers and is not in the interest of the general welfare." Why, or why not?

REFERENCES FOR FURTHER READING

Annual Reports of the Federal Farm Loan Board.

Benner, Claude L.: *The Federal Intermediate Credit System.*

Herrick, Myron T.: *Rural Credits.*

Nourse, Edwin G.: *Agricultural Economics,* chaps. xiii and xiv.

Putnam, George E.: *The Land Credit Problem.*

Report of the Joint Commission on Agricultural Inquiry. Vol. II (1921).

Taylor, Henry C.: *Agricultural Economics,* chap. xvi.

Wiprud, A. C.: *The Federal Farm Loan System.*

Willis, H. Parker: *The Federal Reserve System,* chap. lxvi.

Wright, Ivan: *Farm Mortgage Financing.*

CHAPTER XXVII

FINANCING URBAN REAL ESTATE

The building, or construction, industry is one of the major divisions of economic activity in the United States. The industry as a whole includes construction activities in connection with commercial, industrial, public work and public-utility, residential, educational, and public buildings. The importance of the industry is evidenced by the fact that the building contracts awarded in thirty-six states amounted, in 1924, to $4,485,792,000, of which residential building accounted for $2,050,092,000, or 45 per cent of the total. It is the residential construction with which we are here principally concerned, for the bulk of the other types of building operations are financed by methods explained in chapter xiii.

The financing of residential building has come to require the utilization of great sums of borrowed money. The present chapter is devoted to a discussion of the numerous financial devices and institutions that have been developed for raising the funds required by this division of our economic organization. We shall find that the construction industry is financed in a variety of ways. To some extent it is directly financed by the individual owner; to a larger degree it is financed only in part by the individual owner, or builder, who places a mortgage on the property as a means of raising the balance; and to a considerable extent it is financed through co-operative building and loan associations. With the coming of the apartment-house era, however, the large amount of capital required for residential construction has led to the extensive use of mortgages and mortgage bonds which are marketed through both ordinary and special investment banking channels. As in the case of the marketing of railroad, industrial, and other bonds, commercial banks, trust com-

panies, savings banks, and insurance companies are involved as financial intermediaries in the process. The building and loan associations will be given first attention.

I. BUILDING AND LOAN ASSOCIATIONS

The building and loan association is the oldest form of co-operative credit institution in the United States, the first one having been organized in a suburb of Philadelphia in 1831. In the course of their evolution the building and loan associations have passed through several phases, a brief account of which will best serve to indicate both their purpose and the nature of their operations. The original form of building and loan association was little more than a home-builders' club, where each individual paid into the common treasury a certain sum of money each month. The purpose was to secure enough members so that a moderate monthly payment by each would aggregate every month a fund sufficient to build a home for one of the members. For example, if there were one hundred members and each paid into the association twenty dollars per month, every month one member could begin the building of his home, to cost two thousand dollars; and at the end of one hundred months each would have a two-thousand-dollar home. The club required each home-builder to give a mortgage on the home as security in case the member failed to continue his monthly payments after receiving a loan from the association. When each member had acquired a home, the association, having accomplished its purpose, was dissolved.

A second step in the development of the building and loan association was marked by the introduction of shares, which enabled any individual who wanted to build a better home than his fellows to do so by investing more money each month than the others. In the foregoing illustration, if an individual invested $40 per month instead of $20, he could build a $4,000 instead of a $2,000 house.

A third phase was the development of the depositing mem-

ber. A depositing member is one who joins the association, not with the expectation of borrowing funds for the purpose of acquiring a home, but merely for the returns which he may receive from the investment of his funds in the association. The profits of the association were derived from two sources: (1) the payment of interest on the money advanced for home-building by the borrowers thereof; and (2) from the system of premiums and fines which was developed. Each individual who borrowed funds for home-building was at first supposed to pay interest to the association at the current rate; but so many members often wished to build at the same time that the practice developed of making the award to the one who would bid the highest above the current rate of interest. The fines were levied against members who became delinquent in paying their dues. Both these sources of income have at times proved very fruitful. It should be added here, however, that the system of fines and premiums gave rise to various abuses in connection with their administration, and they are now being gradually eliminated.

The depositing member has played a very important part in the development of building and loan associations. In crowded industrial centers where the demand for loans from prospective home-builders has usually exceeded the ability of the ordinary members to furnish the funds, the depositing member has proved of great assistance. Since the depositor was, however, interested only as an investor it was found necessary to extend him one privilege not possessed by the ordinary member—that of withdrawing his shares at any time in case he desired to use his funds elsewhere.

The fourth stage in the evolution of the loan association was featured by the introduction of the serial plan. The original associations, as we have seen, were dissolved, or terminated, as soon as each borrowing member had acquired a home; but under the serial plan the association becomes virtually a perpetual organization. Under this plan additional members may be added to the original association at stated intervals, say, once a year,

each new group of members constituting an independent series which terminates when all the members of the series have acquired homes. Thus the association lives as long as new series of members continue to be added.

The final step was the introduction of the so-called permanent, or Dayton, plan which originated in Dayton, Ohio, in 1870. It is merely a modification of the serial plan, the distinguishing feature being that it is unnecessary for an individual who wishes to join a permanent association to wait until the opening of a new series of membership; he may take out an individual membership at any time and purchase as many shares of stock as he may desire. Each borrower can also pay off his debt as fast as he desires and retire from the association at his own convenience.

All of these types of loan associations are still in operation in the United States. In 1924 there were 7,183 associations operating under the serial plan; 3,124 under the permanent plan; 96 under the terminating plan; and 76 under other plans. There are several hundred additional associations, but the reports do not indicate under which plan they operate. It is of interest to note that some of the larger associations do business throughout a state and that as many as thirty associations extend their scope of operations to include the territory of other states. Those operating within a single state are usually known as "domestic" associations, while those which operate in a second state are usually known in that state as "foreign" associations.

The management of building and loan associations is vested in a board of directors chosen by the members, while the routine administrative duties are performed by elected officials. The association makes two types of loans, known as "stock loans" and "real estate loans." Stock loans are secured by the individual's shares in the association, the loan being limited as a rule to 85 per cent, or less, of the book value of the shares at the time the loan is made. The real estate loans are made to members on the security of mortgages on the homes to be built, or

A BUILDING AND LOAN ASSOCIATION STATEMENT*

CASH RECEIPTS

Cash on hand		$ 167.48	
Instalments "A"	$ 9,528.34		
Instalments "B"	2,400.00		
Interest	3,074.32		
Premium	517.38		
Fines	17.00		
Loans repaid	2,750.00		
Expenses (rents)	25.00		
Real estate contracts	1,201.52		
		19,603.56	
Outstanding orders		3,166.80	
Total			$ 22,937.84

ASSETS

Real estate loans and contracts	$162,809.42	
Stock loans	55,325.00	
Tax certificates	681.03	
Interest, taxes, etc., due and accrued	2,218.29	
Real estate owned by association	628.14	
Office furniture	179.00	
Cash on hand	2,184.22	
Total		$224,025.10

CASH DISBURSEMENTS

Outstanding orders		$ 2,099.08	
Loans	$ 2,750.00		
Instalments withdrawn	3,170.50		
Interest	238.50		
Expenses	858.04		
Real estate contracts	137.50		
Matured stock	10,800.00		
Contingent fund	700.00		
		18,654.54	
Cash on hand		2,184.22	
Total			$ 22,937.84

* *One Hundred and Sixty-fifth Quarterly Statement of Peoples' Building and Loan Association*, Chicago.

purchased. The valuation of the property is made by the board of directors or by an appraisal committee appointed by the directors.

An interesting problem of management has always been that of the disposition of the accumulated property. In the early associations the earnings were kept in a common fund and were not disturbed until the time of final dissolution, losses meanwhile being paid out of the accumulated funds. But with the development of the depositing members, who had the privilege of withdrawing before the dissolution of the association, and whose interest in the organization was solely that of an investor, it became necessary to apportion the profit from time to time as dividends. At present, it is the almost universal rule to pay dividends semiannually.

The growth of building and loan associations in the United States has easily kept pace with the increase in population and the development of other forms of financial institutions. The growth since 1920 has been particularly rapid. In the year 1924 there were 10,744 such associations in this country, having a total membership of 7,202,880 persons and total assets of $3,942,939,880. While the eastern and central states have the largest number, the distribution, in proportion to population, is fairly uniform throughout the country.

The building and loan associations have filled a real need in our financial system.—The economic and social significance of the building and loan association is stated, somewhat extravagantly, by one writer in the following language:

> Thrift is being encouraged; economy is being taught; good citizenship is being developed; communities are being improved; and it may be doubted if banking in any of its forms of co-operative effort in any other direction has in it so much of the promise of social regeneration or the potency of true progress.

Certainly, it may be said that the lack of investment-banking institutions equipped to provide funds for the small-home builder, left a crying need for an institution such as the building

and loan association. Moreover, the exceptional convenience and cheapness of the association method of acquiring and paying for property would under any circumstances make it an institution capable of rendering very great service in promoting thrift and economic progress.

The loan associations have not been adequately supervised by governing authorities. For many years there was very little attempt at regulations; but with the rapid growth of associations since the world-war a general movement for regulation has developed. At the present time thirty-seven states and the District of Columbia have some measure of supervision over the building and loan associations doing business within their boundaries; but in many cases the regulation still leaves much to be desired. About thirty-five states require regular examinations and periodical reports of condition. Recent failures in the state of Pennsylvania, however, indicate the need of more careful supervision.

II. FINANCING THROUGH THE "OLD LINE" MORTGAGE

The "old line" or "lump sum" mortgage long represented the standard method of raising funds on real estate security. It is used principally to finance single- and two-family residences and small business buildings, but occasionally it is employed in connection with apartment-house construction. The "old line" mortgage is usually relatively small in amount, as it is intended that it should be bought by an individual investor, either directly or through the intermediation of a mortgage company or the mortgage department of a commercial bank or trust company. Before considering the marketing of the mortgage, however, attention must be given to the character of the mortgage and the nature of the contract between the builder and the mortgage company.

Before agreeing to make a loan on mortgage security the company makes a credit analysis, involving a consideration of

the character of the man seeking the loan, the part of the city in which the building is located, the probable direction of growth of the city, and the possible saturation point for residences in that vicinity. It also makes sure that the building is not too high grade for the vicinity in which it is located, and the possibility of a decline in real estate values is carefully considered.

A margin of safety is always required by the mortgage company. The standard practice has been to grant a first-mortgage loan equal to only 50 per cent of the value of the property; but in recent years the percentage has tended to rise, and in the case of dwelling-houses the loan is sometimes equal to 75 per cent of the cost of the bulding. The practice, however, varies considerably with different companies and in different sections of the country. As protection against premature demise, the owner is often required to take out life insurance as additional security for the loan.

The period of time for which a mortgage loan runs has commonly been from three to five years, although there has recently been a tendency to lengthen the duration. The selling commission, which is usually collected when the contract for the loan is closed, ordinarily ranges from 2 to 3½ per cent. The other charges paid by the borrower include a fee for inspection, and very frequently another fee for a photograph of the property. The borrower also pays for the abstract of title or for title insurance. In some cases, however, mortgage companies charge a flat fee of 4 or 5 per cent and then meet all the expenses, except those in connection with the title.

The mortgage company acts both as an underwriter of the project and as a distributor of securities.—The commissions received are, in part, compensation for the mortgage bank's service as discoverer and investigator of the project; in part, compensation for the risks assumed as underwriter of the loan; and, in part, compensation for the service in marketing the mortgage. The amount of the commissions, as in the case of other

investment-banking institutions, are determined by general competitive conditions.

The mortgage company resembles the commercial paper house and the bond house in that it seeks to turn its capital as rapidly as possible. It does not desire to hold the mortgages as investments; it sells them as soon as opportunity offers. Since it is necessary for the mortgage company to advance the funds to the borrower before the mortgage is sold, it must—like the bond house and commercial paper house—borrow large sums from the commercial banks for short periods of time. The mortgage company may, of course, be able to procure funds from the commercial banks at a slightly lower rate than that at which the mortgage is floated; and thus a small incidental profit may sometimes be realized from the interest on the mortgage during the time it is in the possession of the mortgage company.

The marketing of real estate mortgages involves no elaborate financial machinery. Since the mortgage is for a lump sum it must be sold to a single investor; and the main customers, therefore, tend to be large institutions which can buy loans of substantial size and still apply the principle of diversification of investment. These include insurance companies, colleges, eleemosynary institutions, trustees of estates, commercial banks, and building and loan associations. There are also some individual investors. The life insurance company is the most important single purchaser.

Since few of the purchasers of real estate mortgages are willing to buy before the building has been constructed, the builder must finance the construction by short-time credit operations. As a matter of fact, the builders procure the funds needed chiefly from the commercial banks, on personal loans secured by collateral. They also secure mercantile credit advances by giving their notes to dealers from whom building materials and supplies and fixtures are purchased. These notes are made to mature at the date when it is expected that the mortgage can be sold. The volume of commercial bank loans in a large metropoli-

tan center, extended to finance the construction of houses and apartment buildings, through loans, first to builders and second to the underwriting mortgage companies, is enormous.

Second-mortgage companies have been organized in some states.—These companies, which are found mainly in the Middle West, have sometimes attempted to sell second mortgages to the public, but in the main their activities are confined to purchasing second mortgages outright for investment. Some of these companies also buy first mortgages at a discount and sell them to the public. The stock of these companies is usually subscribed by builders, building-material interests, banks, and real estate men.

The profits in dealing in second mortgages are derived in part from interest on the mortgage and in part from a discount on its purchase price. The nature of the profits may best be shown by a typical case. Suppose a contractor has sold a residence for $10,000. The home-buyer is required to pay cash for 20 per cent of the price, or $2,000. He gives a first mortgage for $5,000, which is sold to an investor through a mortgage company, and a second mortgage for the remainder, or $3,000. The second mortgage bears interest at, say, 6 per cent, and the principal must be paid off at the rate of $100 each month. The contractor who receives the mortgage from the home-buyer naturally wishes to get his capital out as soon as possible in order that he may undertake new operations. He therefore sells the mortgage to a second-mortgage company at a substantial discount. In the case before us the mortgage company buys the mortgage at a discount of 5 per cent a year, amounting to 12.5 per cent for the 2½-year period. The company would thus pay to the contractor $2,625 for a $3,000 mortgage. Since the mortgage is paid off in monthly instalments of $100, the total investment is returned to the company in twenty-six and one-quarter instead of thirty months. The mortgage company thus receives in interest proper, 7.6 per cent on its average loan, and in addition to this it receives a discount profit amounting to

$375, which is equivalent to 13.2 per cent on the average amount of the loan. The two combined make the cost to the contractor 20.8 per cent. It often works out that the profits of the second-mortgage company are even larger than this. Since most home-buyers are anxious to clear their homes of debt as soon as possible, they often retire the mortgage more rapidly than is stipulated in the contract. The more rapid the reduction in principal, the larger is the rate of return on the funds actually invested in the mortgage.

It will be seen that under this plan the home-owner nominally pays only 6 per cent on the second mortgage and that it is the contractor who pays the large discount. In figuring the cost of the building, however, the contractor counts the cost of the funds which he uses as a part of the cost of construction. Accordingly, it enters into the price which he asks for the house. During a period of housing shortage, he can get his price; but in a period when the building industry has been somewhat overdone, it may not prove so easy to pass the burden along to the house-owner or renter.

In justice to the second-mortgage finance companies, it must, however, be pointed out that before they were developed it was the common practice for this business to be handled by individual note-borrowers, or "shavers," as they were commonly called. The costs involved under these conditions were much greater than at present. It should be added that the finance companies are usually offshoots of banks, and that on the whole they are efficiently managed. Notwithstanding the high financing costs still involved in the use of a second mortgage, these companies have undoubtedly proved a stabilizing influence in the building industry.

In one city a peculiar agreement regarding second mortgages has been reached between the contractor and the building and loan association. This agreement provides that the contractor will take a second mortgage on the property, the mortgage to mature at the end of three years. The owner makes his regular

payments to the building and loan association, and the association agrees that at the end of three years it will reappraise the dwelling. If payments to the association have been kept up, the association on the basis of its new appraisal will make a new loan to the owner, which under ordinary circumstances is sufficient to retire the second mortgage. The home-owner thus consolidates the first and second mortgages at the end of three years. He again starts to liquidate his indebtedness and all the debt is retired at the end of fifteen and one-half years from the date of the first loan.

The financing of building operations by means of the "old line" mortgage has several shortcomings. First, if the investor needs his funds before the mortgage matures he finds no ready market for the mortgage except at a substantial discount. Second, the mortgages run for relatively short periods and renewal charges often constitute an important additional financial burden. The investor is also often deterred from purchasing short-term mortgages because of the frequency with which he would have to make reinvestments. Finally, the mortgage is usually too large for the ordinary individual investor and thus the market from which funds may be drawn for real estate financial operations is unduly restricted.

III. FINANCING THROUGH THE FIRST-MORTGAGE BOND

The first-mortgage real estate bond was devised as a means of overcoming the weaknesses of the "old line" mortgage, particularly in the financing of large apartment-house and hotel construction operations. The security underlying the mortgage bonds is a "trust deed," or mortgage, very similar in nature to the "old line" mortgage. But instead of selling the mortgage, the company issues a large number of bonds based upon a single-trust deed as security, and offers these for sale to investors generally. This method is, of course, identical with that of ordinary industrial or public-utility bond issues. The financing of urban

building by means of first-mortgage bonds is conducted in part by the regular mortgage companies and in part by the real estate departments of banks and trust companies. There have also developed some investment companies which specialize almost entirely in the underwriting of large apartment and hotel-building projects. As in the case of the mortgage companies, the earnings are derived primarily from commissions which cover the several functions of analyzing, underwriting, and distributing securities.

A significant feature of this business is that the mortgage companies, or bond departments of banks, typically advance funds for the actual construction of the building. That is to say, the bonds are usually put on the market before or during the construction of the building rather than after the building is completed, as is the case with the "old line" mortgage. This practice also differs from the familiar method employed by industries, public utilities, etc., which do their primary financing by means of stock issues, subsequently putting out bonds on the security of the property acquired or developed with the proceeds of the sale of stock. The construction of the large apartment building and residential hotel, it must be emphasized, is largely financed by means of bond issues, secured by a building which is yet to be constructed or completed. The builder is, however, commonly required to furnish a bond guaranteeing the completion of the building according to specifications.

The money derived from the sale of bonds is not turned over to the builder in a lump sum. It is advanced a little at a time as the construction progresses. It is also commonly required that the builder must himself have a stake in the enterprise equal to at least 15 per cent of the total investment at each stage of development. Some companies stipulate that the owner must deposit with the company, before the beginning of construction, a sum equal to the difference between the amount of the mortgage loan and the cost of the building. This precaution is intended, of course, to safeguard the company and

the investors against financial reverses of the owner or the diversion of his funds to other purposes.

The old principle of making loans up to only 50 per cent of the cost value of the property is not usually adhered to in the case of real estate mortgage bonds. As already indicated, it is the common practice to give a trust deed equal to 75 per cent of the cost of the property; and it not infrequently happens that the property is mortgaged up to 90 per cent of its cost, while loans equal to 100 per cent of the cost values are not unknown. The security is not measured by the margin between the amount of the mortgage and the cost of the building; it is measured by the excess of probable earnings over operating expenses and interest charges. The banker estimates as carefully as possible the probable net earnings available for interest charges, and a substantial margin of safety is commonly required. That is to say, the estimated earnings must be greatly in excess of the amount of the interest payments, after allowing for operating expenses. It is a common practice, moreover, to have the bonds mature serially. During the first two or three years, depreciation, repairs, and upkeep are relatively small, and at the same time the difficulties of renting the apartments and holding the tenants are commonly at a minimum. For this reason it is regarded as sound policy to have some of the bonds paid off during the first few years, leaving the amount of indebtedness smaller at a time when a shrinkage in earnings is most likely to begin.

While the margin of security, particularly in recent years, has not been very large, the losses to bondholders have been comparatively small. This is in part no doubt due to the fact that since the war rents have been almost steadily rising in consequence of the housing shortage which has prevailed. It remains to be seen how well these methods of financing will stand the test of a period when the industry is overbuilt, with rents stationary or declining.

Real estate mortgage bonds are often sold to investors on

the partial-payment plan.—By this plan the investor selects a bond and makes a weekly or monthly deposit of a stipulated amount. Interest is paid on these deposits at a rate equal to the rate carried by the bond. When the accumulated deposits and interest equal the amount of the bond, the bond is delivered to the purchaser. In the meantime, the bond house has kept the bond and has clipped the coupons as they come due. The partial-payment plan enables the wage-earner and the person of small salary to secure a higher rate of interest on small savings than he could obtain at a savings bank. This enlarges the market for bonds and is of advantage both to the bond house and the investor.

There are numerous local variations in methods of urban real estate finance.—An interesting use of the corporation as a device for this type of financing is described as follows:

> A person desiring to sell a piece of property, to erect a new building, or to borrow money on property he already owns, approaches a financial institution interested in this plan of financing and indicates the amount he wants to borrow. As a rule he can not borrow over two-thirds of what the institution regards as a conservative appraisal of the property. A corporation is then formed to which the property is deeded. The corporation by this charter is limited to the ownership of the one particular property in question. . . . .
>
> The company then issues preferred stock up to the amount of the loan desired and common stock up to an amount representing the equity in the property. The preferred stock is bought by the financial institution at a reasonable discount, usually from 5 to 10 per cent, and the common stock is given to the owner for his equity in the property. The responsible financial institution which purchases this class of security pays cash when it closes the deal. There is no delay; the purchaser buys the preferred stock outright and the borrower does not have to wait until the purchaser resells it before he gets his money.
>
> As a rule, the owner retains full control of the management of the corporation, although in most cases it is provided that one member of the board of directors shall be a representative of the financial institution. The preferred stock itself draws an agreed rate of interest. . . . .
>
> The dividends are payable quarterly. Further than this the company agrees to redeem a certain amount of the stock each year running over a period of years, so that the amount of the outstanding issue is cut down

serially and the equity behind it is increased. Usually this period is somewhere from ten to twenty years. When it is considered that the one discount covers the financing of the property for such a long time the cost is obviously very reasonable.

Provision is made for the company to pay off more than the agreed amount if desired by paying a small premium. When the preferred stock is all paid off, the common stock represents the complete ownership of the building and the corporation can be continued if desired, or the property deeded back to the owner and the corporation dissolved.[1]

Another interesting device is used in the sale of subdivision lots to investors. According to this plan, a promoter purchases a section of the city which is to be divided into lots for sale to home-builders. The subdivider receives his payment for the lots from the proceeds of a bond issue secured by a mortgage on the property. Purchasers of the lots make their payments in instalments, the proceeds being used to pay the interest and the principal of the bonds which mature serially. The purchasers, however, do not receive title to their lots until they have been fully paid for. In the meantime, the lots are placed with a trust company as trustee. The trustee has title to the land and receives all contracts of payment by assignment. It makes the collections from the purchasers and supervises the management of the property. When all payments are completed and the bonds have been retired, the purchaser receives title to his lot. This arrangement inspires confidence in the buyer that he will actually receive title to the land when he has completed his payments. The trust company, as trustee, is thus in a better position to make collections than the individual would be.

The real estate bond houses perform a number of incidental services for the investor.—Before the bond is sold the bond house sees that agreements covering the type of building are carried out; it assists in the laying out of the building project;

[1] From the address of J. J. Kiser before the Indiana Real Estate Convention, reported in *Proceedings of National Association of Real Estate Boards,* Washington, D.C., June 3–6, 1924.

and it inspects the building during the process of construction at regular intervals. After the building has been constructed it sees that it is properly maintained, that fire insurance is periodically renewed, and that the taxes are paid regularly. In ordinary times the bond house will undertake, for a commission of 1 or 2 per cent, to resell the bond in case the investor needs funds, though in periods of monetary stringency it cannot guarantee a resale.

A few bond houses guarantee the payment of interest and the repayment of the principal of the bond.—Many mortgage companies in New York charge one-half of 1 per cent per annum for a binding written guaranty covering the payment of interest and principal. Such a contract, however, amounts to a heavy contingent liability and is a doubtful practice. In a number of states, guaranties of this sort are practically prohibited by law.

Some responsible mortgage houses state that they will pay the principal and interest to the investor on the day of maturity whether or not the borrower has paid, but they do not make a binding contract to this effect. Bond houses are willing to maintain a "moral" guaranty of this sort because by so doing they are enabled to state that over a period of years their customers have suffered no losses. Recently some small mortgage concerns have made arrangement with surety companies whereby the surety company guarantees the payment of principal and interest on bonds sold by the mortgage house.

On the whole, the financing of urban real estate operations has thus far given reasonable satisfaction alike to builder, mortgage company, and investor. The methods employed in some cases are undoubtedly open to question, and the need for more effective supervision and regulation is apparent. Nevertheless, the mortgage companies and banks which have underwritten and distributed the mortgage and bond issues, without which urban building operations on a large scale would have been impossible, have played an indispensable rôle in modern industrial life.

QUESTIONS FOR DISCUSSION

I. BUILDING AND LOAN ASSOCIATIONS

1. "The building and loan association is a co-operative means of effective savings." How?
2. "The building and loan association is both a source of loans and a place where money may be invested at interest." How?
3. How has it ordinarily been determined which member of the association should have the privilege of building first? Do you think this is a good principle? What is the objection to the system of premiums?
4. Do you regard the security back of the loan made by the loan association as ample?
5. What is the advantage of the serial plan of organization as compared with the terminating plan?
6. What are the practical advantages of the permanent, or Dayton, plan? Do you see any disadvantages in it?
7. In the absence of the building and loan association what rate of interest would the man of small means probably have to pay for funds used in the purchase of a home?

II. FINANCING THROUGH THE "OLD LINE" MORTGAGE

8. What factors are considered by the mortgage company in its analysis of a proposed loan secured by an "old line" mortgage?
9. How large a margin of safety do you think should be required on a loan secured by a mortgage on a dwelling-house? on a vacant lot?
10. What is the relation of commercial banks to the financing of urban real estate operations? Do you see any objection to the present methods so far as commercial banks are concerned?
11. How do the methods of marketing second mortgages differ from the methods of marketing first mortgages?

III. FINANCING THROUGH THE FIRST-MORTGAGE BOND

12. How do you account for the development of the first-mortgage real estate bond?
13. Why is the investor willing to purchase real estate bonds before the building has been constructed, while he insists that a corporation have an income record before he will buy corporation bonds?
14. What precautions are taken by the mortgage company, during the process of construction, to insure a proper margin of safety?
15. What is the real security behind a real estate bond?
16. What reason do you see for the use of the corporation in real estate financing, as described on pages 689–90?

17. What regulations would you think desirable for real estate mortgage companies?

REFERENCES FOR FURTHER READING

Bingham, R. F., and Andrews, E. L.: *Financing Real Estate.*

Clark, H. F.: "Regulation of the Building and Loan Association," *Journal of Political Economy* (December, 1924), pp. 621–47.

Dexter, Seymour: *Building and Loan Associations.*

Proceedings of Mortgage and Finance Division of National Association of Real Estate Boards, Seventh Annual Convention, Washington, D.C., June 3–6, 1924.

CHAPTER XXVIII

CONSUMPTIVE CREDIT INSTITUTIONS

From the point of view of the uses to which borrowed funds are devoted, credit was classified in chapter vii under the headings, investment, commercial, and consumptive credit. In the preceding chapters, the financial structure that has been developed under the modern capitalistic system in connection with investment and commercial credit operations has been discussed; and there remain to be considered only the financial agencies and institutions associated with the making of loans for non-productive purposes. Such loans, it may be recalled, are to be distinguished from investment and commercial loans in that the use to which the borrowed funds are devoted does not provide the means for paying the loan either within a short or a long period of time; they are not self-liquidating, but must be paid out of other resources. Consumptive loans are, as we shall see, usually of very small size; and they are contracted by persons whose credit standing is commonly such that it would be impossible for them to secure funds from the financial institutions which we have been considering in preceding chapters.

Consumptive finance has been relatively neglected.—A striking feature of the modern financial system has been the almost complete absence—until very recent times—of "legitimate" financial agencies organized for the purpose of extending credit for consumptive purposes. We found in chapter xviii that commercial banks sometimes make consumptive loans secured by stocks and bonds and other collateral; and we have elsewhere seen that a vast amount of trade credit is extended by retail merchants and dealers for consumptive requirements. But the lending of money in small sums for consumptive purposes has in the main been left to private interests which, acting without

public grant of power, and indeed usually outside the pale of the law, have ruthlessly exploited precisely those classes of society which can least afford to be exploited.

The explanation of the lack of legitimate financial institutions in the field of consumptive credit is apparently the age-old prejudice against the charging of high interest rates to persons in distressed circumstances. Since consumptive loans are not devoted to uses which will directly provide the means of repaying the loan, and since the borrower for consumptive purposes is commonly in reduced circumstances, such loans necessarily bear a much higher rate of interest than those made for industrial, commercial, or agricultural purposes. Hence lending for consumptive purposes is foredoomed to unpopularity. It will be recalled, moreover, that the Bible condemns all interest as being usury, and therefore unjust. The biblical law came in time to be incorporated into the civil codes of Western European nations and it was not until the beginning of the modern era that any interest charge was legal. The philosophy underlying this prohibition of all interest is ascribable either to a sympathetic regard for the poor or to a recognition of the economic impossibility of their paying interest. In ancient times funds were borrowed almost exclusively for consumptive purposes—virtually to prevent starvation—and such loans were in consequence regarded as in the nature of almsgiving. To exact interest from a poverty-stricken class seemed to violate every principle of common humanity.

But with the development of capitalistic industry and the attendant borrowing of funds for productive purposes, the charging of interest appeared in a very different light. When a borrower devoted the funds procured to productive enterprise, it was readily seen that he was making a gainful use of the loan and was therefore able to pay back the principal with a bonus, and also that the lender was foregoing a like profitable employment of the capital, and was therefore entitled to a recompense. Gradually the charging of interest on such loans was universally

legalized; but even to the present day we find survivals of the old prejudice in the usury laws of the various states, which prohibit exorbitant interest rates, that is, rates above a certain prescribed maximum—slightly above the normal going rates.

The existence of usury laws has made it necessary for any financial agency which desired to make loans for consumptive purposes to charge unlawful rates of interest, with the result that the risks of fine and imprisonment involved contributed to still higher charges than would otherwise have prevailed. Various types of financial institutions have been developed through private initiative for the extension of consumptive credit to individuals in need of financial assistance. Some of them are of long standing—among the earliest forms of financial institutions, indeed; while others are of quite recent development. The passage of remedial loan legislation by a number of American states during recent years has, moreover, done much to place the business of consumptive lending on both a legitimate and a substantial basis.[1]

I. THE BUSINESS OF PAWNBROKING

One of the chief resources of individuals in need of funds has always been the pawnbroker. Indeed, pawnbroking appears to be the oldest form of banking operation, if such it may be called; for from earliest times and with all peoples the pledging of personal effects as security for advances of money has existed in one form or another. At the present time pawnbroking plays an important rôle in furnishing consumptive credit in most if not in all of the leading cities of the world. Since the business of pawnbroking requires a dense urban population, it has had its greatest development in the United States during the last fifty years.

A pawnbroker is defined by the laws of the District of Columbia as "any person, corporation, member or members of a corporation or firm who loan money on deposits or pledge of per-

[1] See p. 703.

sonal property or other valuable things other than securities or printed evidence of indebtedness or who deals in the purchasing of personal property or other valuable things on condition of selling the same back again at a stipulated price." The second part of this definition, relating to the purchase of property to be resold at a stipulated price, is especially important, because it renders it impossible for individuals to resort to this means of avoiding laws which are directed only at the lending of *funds*.

The pawnshop makes its profits by lending its own capital. It does not, as a rule, borrow from banks. The earnings are derived either from an interest charge on the money loaned, or from a special charge of so many per cent a month, or from a combination of the two methods. In the absence of restrictive legislation, added profits are also often derived from the sale of unredeemed property that has been pledged.

Practically all of the states in the Union have passed legislation of one sort or another designed to control the pawnbroking business; and the municipalities in which pawnbroking establishments are located usually have ordinances which supplement the state legislation. The laws of the different states vary so widely that it is impossible to present a succinct summary of pawnbroking legislation. A few general statements will, however, suffice to indicate the nature of the regulation to which the business is subjected.

It is a common practice for either the state or municipal laws to require the taking out of a license; and in a few states the pawnbroker is required to give a bond at the time he obtains his license. A number of states fix the interest rates and charges which may be levied; and many state laws or city ordinances contain provisions governing the sale of unredeemed property. The better laws provide that a certain period of time—usually from two to six months—must elapse after the period fixed for the redemption of the pledge before the effects can be sold. Advertisement of the sale is also commonly required. It is also the usual practice to require the pawnbroker to keep a register giv-

ing the name of the pawner, the description of the goods pledged, and the amount of money loaned; while a number of states require, in addition, the residence of the pawner and the rate of interest charged. A great many laws do not make any provision for the disposition of a surplus above the amount of the loan, which is often received from the sale of pledged property. Those that do make provision require the surplus to be returned to the owner of the goods.

The interest rates and special charges vary widely in different states and cities. In Baltimore, for example, the interest rate is 6 per cent per annum, with the charges 2 per cent per month; in Chicago the interest rate is 3 per cent per month, with charges forbidden; and in Philadelphia the interest is 6 per cent per annum, with charges 5 per cent per month.

Where city ordinances or state laws do not fix the duration of the loans, the general rule is to limit it for thirty days, though renewals, so long as the accrued interest is paid, are usually granted an indefinite number of times.

The table on page 699 shows the volume and the nature of the business of the pawnbroking concerns of Chicago for one month during the year 1898.[2]

Since much of the property pledged with pawnbrokers consists of lost or stolen goods, the regulation of the pawnshops is usually vested in the municipal police. The most common plan of control requires the pawnshops to make daily reports to the police authorities, and the police to make daily visitations of all the pawnshops. Indeed, the police often visit the pawnbrokers several times a day; for it is their duty to supply the pawnshops with lists of stolen or lost articles, inspect the pawnshop books and pledges, assure themselves that the broker has kept within the limits of the law, and recover any stolen or lost articles that may have been accepted in pawn. In order to facilitate the work of the police in identifying those who have pledged stolen prop-

[2] W. R. Patterson, "Pawnbroking in Europe and the United States," *Bulletin of the Department of Labor* (March, 1899), p. 274.

erty, a few states require a minute personal description of the person pledging the property. And in order that stolen or lost property may be traced, some states require that the pawnbroker may not disfigure the property pledged during the period that it is subject to redemption. Some states, moreover, stipulate that no article may be accepted from an employee, servant, or apprentice, until the pawnbroker has assurance that the holder is the rightful owner, apparently on the principle that such a person is assumed to be guilty until he is proved innocent. At least one state also stipulates that a person of unsound mind

NATURE OF PAWNBROKING LOANS

Articles	Number	Amount Loaned	Average Loan
Gold watches	5,160	$40,242.35	$ 7.80
Silver watches	2,980	5,270.55	1.77
Rings	4,822	34,141.10	7.08
Jewelry	2,276	25,841.34	11.35
Clothing	6,543	11,344.45	1.73
Musical instruments	356	768.46	2.16
Firearms	596	1,225.50	2.06
Miscellaneous	1,724	5,415.55	3.14
Total	24,457	$124,249.30	$5.08

shall not be allowed to place articles in pawn, while another prohibits brokers from receiving pawns from a person appearing to be intoxicated, from a notorious thief, or from an individual known to have been convicted of larceny or burglary.

In recent years pawnshops of a quasi-philanthropic nature have been formed.—The growth of state and municipal legislation designed to regulate the pawnbroking business has left much to be desired. There is not only great diversity in the legislative provisions, some of them being practically impotent; but the interest rates and charges are as a rule extremely high. Accordingly, an attempt has been made in recent years in the United States, as well as in Europe, to place the making of loans secured by personal property upon a more satisfactory

basis through the organization of pawnbroking companies which make loans secured by personal property with as small charges to the borrower as is consistent with safety and with the earning of very moderate dividends on the capital stock.

A considerable number of companies of this type have been organized in various cities of the United States. They usually are distinguished by such names as "collateral loan company," "workingmen's loan association," or "provident loan society." These institutions are organized and financed by men of high standing in the community; and while it is insisted that their purpose is in no sense a charitable one, it is nevertheless a definite part of the plan not to charge all that the traffic will bear, but to make the institutions merely self-supporting. One such company in Chicago, the officers and directors of which are among the best-known business men in the city, has now been doing business for more than twenty-five years. In the year 1919 the capital stock amounted to $800,000; the loans during the year numbered 54,624, of an aggregate value of $2,083,576.50; the net earnings were $91,911, of which $48,000 were paid out in dividends, a rate of 6 per cent on the capital stock.

While legislation on the subject of pawnbroking has been gradually improving and while the plane of the business has been substantially raised in recent years, there is still much room for improvement in the conduct of the business. It would seem, however, that the importance of the business of pawnbroking will be substantially lessened in the future in consequence of the development of other consumptive credit agencies to be described below.

II. THE LOAN SHARKS

Where the pawnbroker advances money on the security of property left with the pawnbroker and pledged for the payment of the loan, the so-called loan shark extends credit on either the unsecured promissory note of the borrower, or upon his note secured by a mortgage on household furniture left in the use of

the borrower, or by an assignment of wages or salary. Such money-lenders, whether individuals, firms, incorporated associations, or stock corporations, have a permanent loan capital employed solely for the purpose of making small loans, usually less than $300. It is the practice to arrange for repayment in weekly or monthly instalments, usually averaging ten months.

Loans made on "plain notes" without indorsement, guaranty, or security are simple character loans. While the risk involved is usually fairly high, if the loan is small, the character of the borrower exceptionally good, and his employment steady and remunerative, such loans are as satisfactory as any. It is a very common practice, however, to require the wife to join in the obligation; for experience has shown that confidential loans made to either husband or wife, without knowledge of the other, carry an added risk of loss through failure of the family to cooperate and economize with a view to repayment.

Loans that are secured by a chattel mortgage on property left in the possession of the borrower, or by an assignment of the borrower's wages or salary, are not so much superior to the unsecured loans as one might suppose, for the reason that restrictive laws on both subjects make it practically impossible to realize upon such security through legal processes. Moreover, since the loan shark—who necessarily charges usurious rates of interest—is himself outside the protection of the law, he is not in a position to command the aid of the law in effecting collections. Many employers, moreover, refuse to recognize an assignment of an employee's wages or salary.

In the case of wage and salary assignments it is important to note, however, that many employers who refuse to recognize wage assignments also follow the practice of discharging employees who assign their incomes. Where this is the case, the loan shark is placed in a peculiar position, for he can carry a threat to the borrower that the employer will be notified if the loan is not paid. While such a threat is of no value from a legal

point of view, in practice it is a very effective means of collection.

Because of the lack of any real property security and because of the illegality of their own operations, the loan sharks have found it necessary to employ "roughhouse" collection agents and "bawlersout" to intimidate and harass the borrowers and their families and to embarrass them with their neighbors, friends, and employers. Interestingly enough, the loan sharks long ago discovered that women are the most successful agents for this purpose.

INTEREST RATES ON SALARY LOANS

Amount of Cash Received by the Borrower	Payments			Total Amount Paid by the Borrower	Amount Paid in Excess of the Amount of Cash Received	Annual Interest Rate (Per Cent)
	Amount of Each	When Due	Number			
$17.00	$2.00	Weekly	12	$24.00	$7.00	329
21.50	2.50	Weekly	12	30.00	8.50	316
26.00	2.45	Weekly	16	39.20	13.20	310
26.00	3.00	Weekly	12	36.00	10.00	308
34.00	4.00	Weekly	12	48.00	14.00	329
34.00	2.65	Weekly	20	53.00	19.00	277
39.00	9.00	Bi-Weekly	6	54.00	15.00	286
40.00	4.50	Weekly	12	54.00	14.00	280
40.00	20.00	Monthly	3	60.00	20.00	300

The rates charged by the loan sharks vary widely, but they are always ruinously high. The minimum appears to be 10 per cent a month, while 20 per cent is not at all unusual. Many individual cases have been noted, moreover, where the rates amounted to from 500 to 1,000 per cent a year. Since such interest rates are illegal, the charge is not levied as an interest rate, the most common method employed being to add 50 per cent to the amount of the loan and make this sum payable without interest in twelve weekly instalments. Thus a loan of $50 would require twelve weekly payments of $6.25 each. The accompanying table shows the charges expressed in terms of interest rate by one representative salary loan company in New York.[3]

The reasons for seeking funds from the loan sharks are

[3] From C. W. Wassam, *Salary Loan Business in New York City*, p. 36.

sometimes good and sometimes not. It has been stated by students of the question that about 75 per cent of the individuals who borrow from the loan companies are men with families who are temporarily in need, and that about 25 per cent are men who could get along better without the money, which is spent in gambling, intemperance and vice. For temporary need of funds, sickness or death in the home is perhaps the most common cause. The payment of rentals in advance, moving expenses, life insurance premiums, interest on mortgages, and holiday expenses, are among the frequent objects for which the money is secured. It has been estimated that the volume of small-loan business of this kind in the United States was in 1918 about $100,000,000, the average loan being in the neighborhood of $40.

The loan-shark evil is now being rapidly eliminated.—As the result of an extensive campaign conducted by the Federation of Remedial Loan Associations, co-operating with the Division of Remedial Loans of the Russell Sage Foundation, much progress has been made during the last few years in improving the status of the small-town business. The improvement has been effected in two ways: first, by reform loan legislation enacted by various states; and, second, by the organization of new forms of lending companies to be discussed below. As a result the loan-shark evil is now almost a thing of the past.

When legislation governing the consumptive loan business has been enacted by a state many of the former loan sharks remain in business, taking out state licenses and henceforth conforming their practices to the requirements of the law. The loan sharks were admittedly a necessary evil; for in the absence of constructive loan legislation, the legitimate loan agencies rendered a service to the community that was indispensable. So long as the usury laws stood upon the statute-books without qualification, it was, moreover, impossible for the money-lenders to conform to the law. The evil lay not so much with the loan sharks as with the lack of remedial legislation.

It is important to observe in this connection that the constructive legislation that has recently been passed, with the sanction of the Federation of Remedial Loan Associations, usually legalizes an interest rate of 3½ per cent a month. It is recognized that costs and risks attending the small-loan business are such that a very high rate is necessary in order to attract capital into that field, and that the inevitable result of laws which unduly restrict the rate of interest is to keep reputable concerns out of business and force borrowers to secure their accommodations from lenders who will risk violations of the law for a money consideration. The practical choice appears to lie between licensed loan companies charging 42 per cent a year and illegitimate agencies which charge several hundred per cent.

Under the operation of the Small Loans Act of Illinois in the year 1919, it is estimated that more than seven million dollars were saved to borrowers in Chicago alone. Nearly two hundred sharks were driven out of business; and the new licensed lenders accommodated nearly forty-five thousand small tradesmen, laboring men, teachers, and men on salaries.

While a majority of the states now have laws requiring the licensing of money-lenders and many others have laws regulating the making of small loans, there is still much to be accomplished; for, in the words of the Director of the Legal Reform Bureau "many of these laws are ill considered, inadequate, crude, impracticable, and ineffective." A uniform small-loan bill has recently been evolved by the interested remedial agencies, and it is hoped that this may in good season be adopted by all the states. Over twenty states have, in fact, passed the measure. In brief, this law makes it unlawful without a state license to make loans to the value of $300 or less at a rate of interest in excess of the legal bank rate; enumerates what the license shall contain; fixes the annual fee at $100; requires a bond of $1,000 with sureties to the state for the use of any person or persons who may have cause of action against the obligor, and binds the

lender to conform to and abide by each and every provision of the act.

The law also provides for the revoking of the license by the state banking department which is charged with the administration of the act; and requires notice of removal of place of business and consent of the banking department therefor. For the purpose of discovering violations of the act, the state banking department may, at any time and as often as may be desired, investigate the loans and business of every license; and for that purpose shall have free access to the books, papers, records, and vaults of such licensee. It shall also have authority to examine, under oath, all persons whomsoever whose testimony may be required relative to such loans or business.

The reduction of the rate on small loans to 3½ per cent a month, or 42 per cent a year, has resulted, first, in an increase in the size of the individual loan office. It is said that formerly the manager of a branch office of a small-loan company could, with $2,000 of working capital, cover his salary and expenses and pay a very high rate of dividends to the owner each year. The lower rate of interest requires a larger capital in order to yield a profit above expenses. This change, it is said, tends to bring more responsible lenders into the small-loan business. A second result of the new law is an increase in the average size of the loans. Returns from the states having the new law indicate that the average of the loans is now between $100 and $125.

III. SMALL-LOAN BANKS

Among the interesting institutions developed in recent years for extending credit in small sums for consumptive requirements is the so-called Morris plan of lending on mere personal responsibility. This plan, originated by Arthur J. Morris in 1910, was first tried out at Norfolk, Virginia, and has now been extended to a number of the larger cities of the country. At the close of 1924, there were over 100 Morris plan banks in the United States. Most of the stock of these banks is owned by the Indus-

trial Finance Corporation, a holding company. During the year 1924, the banks made over 550,000 loans, averaging about $200 in amount. The nominal rate of interest is usually 6 per cent.

The method of making loans under the Morris plan is as follows: The applicant furnishes references as to his character and information as to his money income. In addition, he is required to have at least two indorsers or co-makers of situation and income at least as good as his own. For each $50 borrowed he agrees to pay $1 a week for fifty weeks. The interest is, however, deduced in advance and an investigation fee of 2 per cent is also deducted; hence the borrower receives only $46. In case he fails to make a payment on time, he is fined five cents and notified of his delinquency; while if he gets a week behind, his co-makers are notified. They may be relied upon to see that he catches up again if he can; but in case he fails to do so, the indorsers or co-makers must take his place in making the weekly payments. Arrangements may be made by the borrower for "protecting a loan" against the possibility of his death. For a fraction of a cent a day for each $100 loan, the bank will agree to cancel the unpaid portion of the loan in the event of the death of the borrower, and to return to his estate all payments made on the loan. "Protected loans," it is argued, make it easy to get acceptable co-makers.

The Morris plan banks also receive time deposits on which the return is somewhat higher than the rates usually paid by other banks for similar deposits. Certificates of deposit in a Morris plan bank, as well as stocks and bonds listed on the exchanges, are acceptable as collateral for loans. In the event that collateral is given for a loan, the signatures of co-makers are not required. While the original idea and primary purpose of these banks was to make small loans only for consumption purposes some of them now make loans to small business concerns for business purposes.

Another type of concern which is engaged in the small-loan business is the Trustees System Service. This plan originated in

Birmingham, Alabama, in 1914 and has now been extended to a number of other cities. Its methods of lending are similar to those of the Morris plan banks, but it differs from the latter in that its ownership is more nearly co-operative. The stock of the Trustees System companies is held by the Trustees System National Association, whose stock is apparently distributed in part among industrial classes. At the end of 1922, these companies had made 27,888 loans, the average size of the loans being about $138. In addition to the banking departments, these companies operate insurance and real estate departments.

IV. CO-OPERATIVE CREDIT UNIONS

While the function of the co-operative credit union is to furnish productive as well as consumptive credit to its members, it may most conveniently be discussed in this chapter.[4] The explanation of the development of these organizations is usually assigned to the lack of adequate banking facilities in many agricultural communities and to the need for better credit facilities among small tradesmen and the wage-earning and salary folk of the city. Borrowers of small sums, whether for consumptive or productive requirements, ordinarily receive little consideration from the regular banking institutions.

The credit union, moreover, is not merely a lending institution; it is also an agency for the promotion of thrift and business responsibility among its members. To quote from some of its leading proponents:

> In order to be thrifty many a man requires something more than agencies to receive his deposits and return them to him, when needed, intact with interest: he requires an agency which will make its hours of business conform to his convenience, which is conveniently located, which does not require him to stand in line for a long time awaiting his turn at the expense of his lunch hour and possibly of some of his employer's time; he requires an agency to which he is not ashamed to bring a dollar, fifty cents, or even a quarter; an agency which will constantly remind him of his resolution to save and which will reward his thrift by extending credit

[4] Co-operative credit organizations among farmers were briefly discussed on pp. 626–27.

to him upon easy terms of repayment secured solely by his character and personal worth—credit which will enable him to effect economies in purchasing and embarking in productive enterprises, and will protect him from the usurer. By its proximity and convenience it persuades the man who has not been reached by the savings bank to become thrifty, and this without interfering with the growth of ordinary banking institutions; instead, it actually increases the field of the banks. It makes the accumulated capital available to the person who assisted in its accumulation. It does not become a substitute for the building and loan association or the remedial loan society; instead, it becomes a complement of these agencies, for the basis of the security for its loans is not collateral but character.[6]

As indicated at the end of the foregoing quotation, the essential basis of credit in the co-operative credit union is the character of the individual borrower, the greatest asset of an individual being considered the estimate of his own associates. The advantage of the credit union is that it enables those who make the loan to have an intimate knowledge of the personal habits and financial and domestic situation of the small borrower. Being composed of a small homogeneous membership, mutually acquainted, such loans can be made with a minimum of risk and hence at a relatively low rate of interest. Indeed, because of the close association of the membership, together with their control of the credit union itself, the rate of interest may be less here than in any other type of lending institution engaged in the extension of consumptive credit.

Credit unionism has been extensively developed in foreign countries.—Originating in Germany about the middle of the last century, in the course of its development credit unionism has assumed two different forms, known, after their respective founders, as the Raiffeisen and Schulze-Delitzsch systems. One or the other of these systems—the difference between which need not concern us here—has been adopted with modifications in most of the leading countries of the world. It was estimated that at the outbreak of the Great War there were in the world more than sixty-five thousand of such associations, having an

[6] Arthur H. Ham and Leonard G. Robinson, *A Credit Union Primer.*

aggregate membership of fifteen million people and an annual business amounting to over seven billion dollars.

Credit unions abroad have had beneficent social results. There appears to be no difference of opinion as to the social benefits derived from the development of credit unions in foreign countries:

It has regenerated and accelerated agriculture, commerce, and industry. It has stamped out usury and raised millions of human souls from the depths of despair to lives of hopefulness and service. It has supplanted shiftlessness by industry; improvidence by thrift; intemperance by sobriety; selfishness by neighborliness; individual effort by concerted action—in fact, has proved to be one of the most potent moral, educational, and social forces in the history of civilization and in the enrichment of the life of the common people.[6]

It is also agreed that the history of co-operative credit unions has shown conclusively the desirability of basing these institutions on the principle of self-help rather than on philanthropy in any form; and that the organization must spring from a co-operative desire and must depend upon the management of its own members. The greatest student and the greatest exponent of co-operative credit institutions concludes:

Every dallying with greed, every yielding to the spirit of patronage, foreign experience has shown, adds a toe of clay to the huge brazen Colossus, and thereby threatens to overthrow it in spite of its size. And the thing must grow from out of its own self, from the bottom to the top. Committees and boards can do nothing. Large schemes worked by public bodies are as much out of place. The workingman and the farmer must become "the instruments of their own emancipation." None of the systems that have succeeded abroad have been organized from above. They have all risen from below, built up by local associations . . . . which have studied to keep themselves independent of outside influence, self-contained, yet firmly connected among themselves by a bond of union. Nowhere, moreover, has this work been "good fairy" work. Every shilling's worth of success has been purchased by unremitting application, by economy, gratuitous labor (so far as gratuitous labor was possible), zeal, and caution. And experience has shown that it is not otherwise to be obtained.[7]

[6] Arthur L. Ham and Leonard G. Robinson, *op. cit.*

[7] Henry W. Wolff, *Peoples Banks*, p. 260.

It was not until 1909 that credit unions were given legal recognition in the United States by the enactment in that year of the Massachusetts Credit Union Law. Since that time a number of states have passed similar legislation, but on the whole the growth of such institutions has not been as rapid as was expected by their advocates.[8] This is due in part to the lessened need for small loans during the period of war prosperity and in part to the gradual elimination of the loan shark and the introduction of licensed money-lenders. There is also reason to believe that just as co-operation of every sort has been reset with peculiar difficulties in the United States, so the co-operative credit union has found here a relatively infertile soil. It appears certain, however, that credit unions have come to stay and that their importance will steadily increase.

V. LABOR BANKS

A very interesting development since the world-war has been the organization in the United States of a considerable number of labor banks. Although, as we shall see, the loans are more commonly made for productive than for consumptive purposes, these institutions may be more conveniently discussed in this chapter than elsewhere.

The first bank in the United States to be organized and operated under the direction of a trade union was the Mount Vernon Savings Bank of Washington, D.C. This bank was opened in May, 1920, and is under the control of the International Association of Machinists. In April, 1925, there were twenty-nine labor banks in operation in seventeen states, having combined resources of about $90,000,000. Eleven of these institutions are organized as national banks and eighteen as state banks. The organization of a number of other labor banks is in progress.

Labor banks have been classified as follows: (1) Those initiated and controlled by a single union for the benefit of that

[8] See discussion of agricultural-credit unions, pp. 626–27.

particular union. The Amalgamated Bank of New York, controlled by the Amalgamated Clothing Workers of America, is of this type. (2) Those formed by a group of trade unions in a single industry. The Transportation Brotherhoods National Bank of Minneapolis is of this kind. (3) Those organized by the unions of a particular locality. The Federation Bank of New York is an example of this class; at the end of 1924, 126 unions —including 12 international unions—held stock in this bank. (4) Banks originally established as regular commercial institutions, the control of which was subsequently bought by labor organizations. The Empire Trust Company, in New York City, is an example.

When new banks are organized by labor, a little more than 50 per cent of the stock is held by the union or unions participating, the remainder being distributed as widely as possible among individual workers. To facilitate the sale of the stock, the par value is usually small, in some cases as low as $10. If the par value exceeds $50, provision is made for payment in monthly instalments. The by-laws usually provide that stockholders wishing to dispose of their shares must offer them first to a stock purchasing committee set up by the bank.

The by-laws of the labor banks usually provide for a limitation of dividends, ranging from 7 to 10 per cent, and for a division of earnings, in excess of the regular dividend, with depositors. The Brotherhood of Locomotive Engineers Cooperative National Bank at Cleveland was the first national bank to share its profits with depositors. In 1922, after provision had been made for a regular dividend of 8 per cent, dividend checks were mailed to depositors in an amount sufficient to bring the interest rate on their time deposits to 5 per cent.

The original purpose of trade union leaders in organizing labor banks was to secure a larger return on their trade-union funds than those funds could command if kept on time deposit with other banks. These banks, however, extend credit to the workers at comparatively low rates of interest. In 1924, for

example, the Amalgamated Bank of New York, controlled by the Amalgamated Clothing Workers of America, made 1,700 individual loans of less than $300 each. The rate charged on these loans was 6 per cent. The banks urge workers to borrow at moderate rates of interest to make cash payments for goods instead of buying on the instalment plan.

The workers' banks maintain the usual departments of national and state banks and perform all the usual services for depositors. The Amalgamated Bank of New York was among the first to recognize the need for sending actual American dollars abroad when foreign currency became worthless. This bank instituted a dollar-remittance service in Russia and delivered millions of dollars in Russia to relatives of American workers.

A very important phase of the labor bank movement relates to the struggle between capital and labor.—The trade-union leaders contend that the money of labor has heretofore been deposited in regular banking institutions, if deposited at all, and has been made available by the bankers for the activities of the very employers and capitalists who are labor's principal opponents. The following statements taken from an advertisement of the Brotherhood Bank at Cleveland expresses the labor point of view:

Don't scab with your dollars. Deposit them in your own bank.

Do you know that:

The banks are run with the worker's money?

The depositors furnish $12 for every dollar that the bankers put into their business?

Even the smaller country banks are connected with the big city banks and send money to them for investment and "on call"?

The big bankers, using the workers' money, have secured control of the railroads, coal mines, textile mills, and almost every basic industry in the country?

Twelve New York banks bind together ninety-two railroads, constituting four-fifths of the nation's transportation system as well as twenty-two railroad equipment companies.

Eleven banks control 75 per cent of the coal mines.

These banks are the real power behind the nation-wide open-shop campaign to beat down wages and destroy the labor unions. Every dollar

of your money that you deposit with the banks in your town connected with the big banks goes to strengthen them in their fight against labor.

Remember:

Banking credit controls every industry in the nation.
The hand that writes the bank draft rules the world.
Labor can write it if it will mobilize its savings in its own banks.[9]

The labor banks have, in fact, refused loans for enterprises of which they did not approve, and have granted special favors to other enterprises which they wished to encourage. Applications for loans from speculators or from middlemen thought to be holding goods off the market for unjustifiable profits are often refused. The institutions favored include employers whose policies are approved by the unions, labor organizations conducting strikes, and co-operative enterprises for the production or marketing of goods.

Trade unions have also organized investment companies.—Seven labor-investment companies, all controlled by the Brotherhood of Locomotive Engineers, were doing business in the United States in March, 1925. The combined capitalization was more than $20,000,000. The purpose of the investment companies is twofold. The organizers seek to provide companies which can recommend to the workers safe and profitable investments for their funds. They also expect to direct the flow of labor's money in a way that will assist organized labor in accomplishing its aims. The extent to which the investment companies and the banks will be able to control the policies of industrial concerns through the control of investment funds cannot, of course, be determined at the present time.

The effective regulation of labor banks presents a problem.—From the standpoint of sound banking practice, the dangers are: (1) that the management may sometimes be chosen without sufficient reference to previous banking and financial experience; (2) that in a desire to promote the welfare of a particular union or group of unions, the loans may not be widely enough

[9] Taken from Richard Boeckel, *Labor's Money*, pp. 112–13.

distributed; (3) that funds might be devoted to union purposes in a time of strike to such an extent as to endanger the reserve position; (4) that in an attempt to control industries, the management may be inclined to emphasize this ulterior purpose to the neglect of sound lending and investment principles.

Since these banks are organized under state and national law, they are of course subject to the general supervision of the Controller of the Currency or of state banking departments. While this safeguards the situation, the problems involved are nevertheless of a peculiar nature and give rise to some rather delicate issues for the Controller of the Currency and state banking departments to decide. The Federal Reserve banks are also concerned with the problem in that these banks are as much entitled to rediscounting privileges as any other commercial banks. The future development and regulation of the labor banks will be watched with much interest by students of banking, as well as by students of industrial relations.

QUESTIONS FOR DISCUSSION

I. GENERAL CONSIDERATIONS

1. What is the explanation of the failure of the regular banking institutions to make loans for consumptive credit purposes? Is such lending unprofitable?
2. Why has there always been so strong a prejudice against private money-lenders?
3. What is meant by usury? Do you favor the abolition of usury laws?
4. Why does the maximum interest rate that may be charged vary widely in different states?

II. PAWNBROKERS AND LOAN SHARKS

5. Why has the pawnbroking business always been held in social disesteem? Does it render no economic service?
6. How does the pawnbroker avoid the usury laws?
7. How do you account for the fact that the charges levied by pawnbrokers are less than those levied by the loan sharks?
8. Would you favor the abolition of the pawnbroking business? If not, what sort of regulation would you require?
9. To what is the origin of the loan *shark* attributable?

10. What are the different types of security back of "small loans"?
11. What is the weakness and the possible strength of loans secured by assignments of wages or salaries?
12. Under the uniform Small Loan Law a rate of interest of 3½ per cent a month has been legalized. Do you regard this as legislation designed to promote the welfare of the masses?
13. Do you believe that philanthropic or semi-philanthropic loans will in the long run lead to the most desirable results?

III. SMALL-LOAN BANKS

14. Do you consider the security offered under the Morris plan as reasonably satisfactory?
15. What rate of interest is charged under the Morris plan? Note that the nominal rate does not tell the whole story.
16. How is it possible under the Morris plan to make loans at rates that are much lower than those charged by "loan sharks"?
17. Why are they so much higher than those charged by the credit unions?
18. Do you see any advantage in the Trustees System Service as compared with the Morris plan?

IV. CO-OPERATIVE CREDIT UNIONS

19. In what ways do the functions of credit unions differ from those of the private lending institutions?
20. What is the point to having a club or other organization as the basis of membership?
21. Do you believe in the principle of one man, one vote?
22. Does it seem to you that the savings feature of the credit union is as important as the lending feature?
23. Just how is it possible for credit unions to make loans at lower rates than private lending agencies?
24. Which do you regard as of greater importance—the direct or the indirect benefits of the credit union?
25. Is there any reason why such institutions should not be extensively developed in the United States?

V. LABOR BANKS

26. Would you call the labor banks "co-operative" institutions similar to the credit union?
27. Do you think the labor banks have filled a real need in the financial system?
28. What do you regard as their primary purpose? their chief opportunity?
29. Should they be subjected to any special type of regulation?

30. What problems do you think may arise in connection with the rediscount operations of national banks controlled by labor organizations?

REFERENCES FOR FURTHER READING

Bergengren, R. F.: *Cooperative Banking.*

Boeckel, Richard: *Labors' Money.*

Ham, Arthur H., and Robinson, Leonard G.: *A Credit Union Primer.*

Hillman, Sidney: "The Labor Banking Movement," *Acad. Pol. Sci.* (April, 1925), pp. 109–18.

Hodson, Clarence: *Money Lenders, License Laws and the Business of Making Small Loans.* (Legal Reform Bureau, 29 Cortlandt St., N.Y.)

Laidler, W. H.: "The Forward March of Labor Banking," *International Trade Union Review* (April, 1925), pp. 92–100.

Levine, Samuel W.: *The Business of Pawnbroking: A Guide and a Defense.*

Patterson, W. R.: *Pawnbroking in Europe and the (United States* Department of Labor, *Bulletin No. 21* (March, 1899), pp. 173–310).

Wassam, Clarence H.: *The Salary Loan Business in New York City.*

Wolff, Henry W.: *Co-operative Credit for the United States.*

CHAPTER XXIX

FINANCIAL INTEGRATION

The desirability of specialization by financial institutions has long been emphasized in the writings of both economists and practical bankers and in legislative acts and court decisions. Just as specialization became the dominant characteristic of industry and commerce during the greater part of the nineteenth century, so specialization in the field of finance came to be regarded as in the natural order of things. A few brief statements will be sufficient to indicate the prevailing views as to what constitute the "legitimate" functions of the different types of financial institutions that we have been discussing in the preceding chapters.

In the writings of economists and practical bankers are found repeated statements to the effect that the business of commercial banking is merely to facilitate commercial transactions through the making of short-time loans—to manufacture credit and furnish an important part of the medium of exchange. Emphasis is also very commonly placed upon the relation of commercial banking to the marketing or mercantile process; indeed, the term "commercial bank" owes its origin to this emphasis—the words commercial and mercantile being used as practically synonymous terms. Banking literature and legislation unite in condemning the making by commercial banking institutions of long-time loans for fixed-capital purposes.

Savings banks, on the other hand, are (in theory) intended to facilitate only the raising of fixed capital, to collect the little rivulets of individual savings and turn them over in larger amounts for investment uses. Investment banks similarly act as intermediaries in the raising of funds for fixed-capital purposes. Even the trust company was originally designed to act

primarily in the capacity of trustee, its banking functions being limited, at best, to investment operations incidental to the employment of trust funds.

There is nowadays relatively little specialization by financial institutions.—From our analysis in preceding chapters, we have already seen that in practice financial specialization is far from complete. We have seen, for instance, that savings banks do a considerable volume of commercial banking business; some of them, particularly in the Middle West, are, in fact, difficult to distinguish from commercial banks, since they handle both commercial and savings accounts and make loans for commercial as freely as for investment purposes. Indeed, a large majority of all savings banks make loans for working-capital purposes —directly to customers and indirectly through the purchase of commercial paper and acceptances in the open market.[1]

We have seen that commercial banks do not now confine their lending operations to mercantile establishments, but extend credit to all classes of enterprise, industrial and financial as well as commercial; we have seen that some of their unsecured loans are devoted to fixed-capital purposes—this being particularly the case with the state institutions, and we have found that they make a huge volume of loans on collateral, a large percentage of which is devoted to fixed-capital purposes.[2] It has been noted that commercial banks now usually have savings departments;[3] and it may be noted that many of them also have investment banking or bond departments. Some of the largest commercial banks of the great financial centers are extensively engaged in underwriting activities, while many of the state commercial banks are actively interested in the financing of urban real estate operations, particularly the construction of apartment buildings. Investment banks nowadays frequently have commercial banking departments; the commercial paper houses have

[1] See chap. xvii, particularly the financial statements on pp. 309 and 315. See also pp. 725–26.

[2] See chap. xviii. [3] See pp. 315–16.

in some instances, at least, broadened the scope of their operations to include underwriting and bond distribution, and the discount companies affiliate with commercial paper houses. Finally, in our study of trust companies we have seen that the laws now permit them to engage in a great variety of financial operations, including trusteeship, agency, suretyship, and both investment and commercial banking.[4]

In a general way, it is therefore already clear that there is in fact no such clean-cut specialization among financial institutions as has been commonly supposed. But if we are fully to appreciate the extent to which integration has been carried out in the financial world and the reasons for this trend, it will be necessary to study the development of the trust company as a type of financial institution and to indicate the effects of this development upon the operations of commercial banks.

I. CAUSES OF THE GROWTH OF FINANCIAL INTEGRATION

While the laws of most states did not in the early days give to trust companies specific power to engage in commercial banking operations, the opportunity to increase their profits by accepting demand deposits and making short-time loans was so enticing that these institutions gradually assumed the functions of discount and deposit. This of course brought them into direct competition with national and state commercial banks, which were denied the power to engage in trust company business; and for a generation vigorous opposition was waged by the commercial banks to this "unwarranted" invasion of their sacred field of enterprise. It was contended, moreover, that this broadening of the scope of trust company operations was as dangerous as it was illegitimate. Numerous cases came before the courts, and at first the decisions supported the contention that commercial banking was not a legitimate field of trust company operation. But as the trust companies of various states continued to extend

[4] See also statement on p. 756.

the commercial side of their business, the state courts gradually came to accept the movement as inevitable.[5]

It was during the decade of the eighties that the trust companies first actively engaged in the commercial banking business. Flying in the face of banking theory and the powerful opposition of the commercial banks, both state and national, the trust companies continued to expand the commercial side of their business and to grow with amazing rapidity. It will be seen from the charts on pages 340–41 that while the number of trust companies is still much smaller than the number of national

CHARACTER OF DEPOSITS IN COMMERCIAL BANKS AND TRUST COMPANIES*

(In Millions of Dollars)

	Trust Companies	State Banks	Nationa Banks
Demand deposits	2,597	4,057	8,919
Time deposits	1,751	4,044	5,159
Not classified	3,437	3,654	775
Total	7,785	11,755	14,853

* From *Report of the Controller of the Currency* (1924), p. 116

and state banks, the rate of increase has been quite as rapid, more rapid indeed than that of the national banks; and that the average size of trust companies is more than two times that of national and seven times that of state banks. The greater number of national and state banks, particularly of the latter, is largely attributable to the fact that until recently the trust company has found a remunerative field of enterprise only in the larger cities—a fact which is also the explanation of the large average size of the trust company. In the last few years, however, the number of trust companies has been rapidly increasing in the smaller cities.

[5] See Tso Hang Mai, *The Banking Functions of Trust Companies* (a Master's thesis of the University of Chicago), 1920.

That the rapid growth of the trust companies has not been confined to the investment and trust features of the business may be seen from the statistics on page 720 of deposits in trust companies, and in state and national banks respectively in the year 1924.

It will be noted that the deposits of trust companies, both demand and time, compare favorably in volume with those of the commercial banks. Quite as significant in indicating the growing similarity of commercial banks and trust companies are the comparative figures of time deposits, which show conclusively that the liabilities of commercial banks are far from being exclusively of a demand nature.

The following statistics on the loans of the various types of institutions afford further evidence of the same trend:

CHARACTER OF LOANS IN COMMERCIAL BANKS AND TRUST COMPANIES*

(In Millions of Dollars)

	Trust Companies	State Banks	National Banks
Loans secured by farm lands and other real estate	704	266	535
Loans secured by collateral other than real estate	836	373	4,456
Loans not secured by collateral	882	383	6,988
Loans not classified	2,872	7,843	.....
Total	5,294	8,865	11,979

* From *Report of the Controller of the Currency* (1924), pp. 35, 88, 90.

The extraordinary growth of the trust companies is largely attributable to the inherent competitive advantages of the non-specialized type of financial institution.—The fact that many types of financial operations are conducted in one building and under one management makes possible a most efficient utilization of the financial resources of the institution, for by virtue of the variety of services that are rendered, the officials of such an institution can be more closely in touch with all phases of

financial and business problems than can those of a specialized institution. The analysis of the interrelations of financial operations and of the interdependence of finance and business that has been made in preceding chapters should make it apparent that an institution which by nature of its work must keep in touch with every aspect of the economic and financial system would naturally be more far-seeing and hence more efficient in its management than would one which from the nature of its operations was brought into contact with only certain phases of the system.

The department-store type of financial institution also has certain direct advantages in attracting business. One class of service naturally calls the attention of customers to the other classes of service; each department reinforces the others.

> If the trustee needs to deposit money, the banking department is at hand; if the investor wishes to buy or sell, be it real estate, or stocks or bonds, the corporation is ready; if the agent finds a purchaser or a renter, that person is attracted toward the company; if the depositor wishes any of the services of the company, he is made to realize the helpfulness of his banker; if a new company is to be opened up through promotion of the enterprises incident thereto, then there is a distinct drawing of the general patronage in the direction of the company; if the individual has any of the needs which are supplied by the company in active life and business, he is drawn to the company when he has a special trust to be performed whether during his life or after death . . . . and so it is one interest attracts another.[6]

Aside from these administrative advantages the trust companies have also possessed certain special advantages over commercial banks because of the less rigid legal requirements governing loans, reserves, etc. While there were undoubtedly certain dangers attending such lax regulation, particularly in view of the diversity of operations conducted, the trust companies were nevertheless enabled—so long as failures did not shatter the public's confidence—to earn very large profits. And, on the whole, trust company failures have not been much more common than those of state and national banks, the number between 1893

[6] *Bankers' Magazine* (April, 1909), p. 637.

and 1908 equaling .70 of 1 per cent of the total number of trust companies, as compared with .61 and .49 of 1 per cent for state and national banks, respectively. It is possible, however, that this comparatively good showing of the trust companies may be attributed to the fact that the commercial banks, particularly the national banks of the reserve centers, were obliged to serve as the repositories of cash which supported the entire credit structure, including that erected on slender trust company reserves.

Commercial banks ultimately found it expedient to engage in trust company operations.—When the commercial banks found it impossible to prevent the development of this "dangerous and illegitimate" type of financial institution known as the trust company, with interesting inconsistency they promptly sought to extend the scope of their own operations to include the whole range of trust business. This development in turn incurred the enmity of the trust companies which henceforth inconsistently exerted all possible influence to confine the activities of commercial banks to their "legitimate" field of financial enterprise.

But the drift toward financial integration could not be checked; and by 1910 fifteen states had, in fact, granted to commercial banks the power to accept and execute trusts. While national banks were not successful in securing permission to engage in trust company business until the passage of the Federal Reserve law, they had, however, by devious methods succeeded in engaging trust company business long before 1914. The method most commonly employed was for the managers of a national bank, or a state bank, in states where commercial banks were not permitted to engage in trust company business, to organize an affiliated trust company, which would be conducted with a "community of interest" with the commercial bank. The common management of the Mercantile Savings and Trust Company and the Mercantile National Bank of St. Louis is an example. According to the Secretary of the Treasury, MacVeagh, there were in 1911 some three hundred cases of this

sort. A second method was also frequently practiced—that of selling a majority of the stock of a national bank to a trust company, thereby effecting in practice a virtual consolidation of the two institutions.

The Federal Reserve Act authorizes national banks to engage in trust business.—The facts as to the inevitable trend of financial development were eventually looked in the face, for we find that the Federal Reserve Act has empowered the Federal Reserve Board to grant by special permit to national banks applying therefor, "when not in contravention of state or local law, the right to act as trustee, executor, administrator, registrar of stock and bonds, under such rules and regulations as the said board may prescribe." Under this authorization a number of national banks promptly made application for permission to assume trust functions.

This threatened deprivation of the special advantages so long enjoyed by trust companies, led them to charge that the Federal Reserve authorization was unconstitutional, and two test cases were shortly brought before the state courts, in Illinois and Michigan. Both decisions, handed down in December, 1915, and September, 1916, respectively, held that the granting of trust powers to national banks was unconstitutional. But upon appeal to the Supreme Court of the United States, the decisions were reversed and congressional authority to grant trust powers to national banks was conclusively established, the issue being decided on the principle of implied powers laid down in the famous case of *McCulloch* v. *Maryland*.

State commercial banks are also being granted trust powers.—One further step was required to make department-store banking a universal phenomenon in the United States; for there were still many states that had not granted trust powers to commercial banks. Unable longer to withstand the tide, the New York legislature, on July 9, 1919, amended the state banking law and gave to the Superintendent of Banking the power to grant to banks applying therefor the right to "act as trustee,

executor, administrator, registrar of stocks and bonds, guardian of estates, trustee and receiver of estates of lunatics, or in any other fiduciary capacity in which trust companies are permitted to act." It is believed that the remaining states will in due course fall into line.

There has been a similar integration in the field of savings banking.—Attention has elsewhere been directed to the assumption of savings bank functions by commercial banks and to the specific recognition by the Federal Reserve law of the existence of savings accounts in national banks.[7] The truth is that during the last thirteen years the volume of savings accounts in savings banks has increased only about 100 per cent; while that in state and national commercial banks has increased 660 and 475 per cent, respectively. Moreover, the volume of savings accounts in all commercial banks now constitutes over 50 per cent of the total savings deposits in the United States.

We have also seen that in recent years the savings banks have invaded the field of commercial banking, and that in consequence the problem of savings bank management is now very nearly identical with that of commercial bank management. Most savings bank deposits are *in fact* payable on demand; and it is recognized that the maintenance of liquid assets,[8] or of a ready access to the reserve resources of commercial banks, is a first requisite in sound savings bank management.

This integrating movement in the field of savings banking had passed through practically the same stages as the trust company development. Just as the commercial banks resorted to the courts to prevent the encroachment of trust companies upon their "legitimate" field of enterprise, so the savings banks appealed to the courts for protection when the commercial banks

[7] See pp. 315-16.

[8] See pp. 322–24. In the light of this recognition many states have, during the last few years, legalized bank acceptances as savings bank investments.

first began to invade their financial preserves;[9] and just as the commercial banks, when they could not prevent the usurpation of commercial banking functions by trust companies, retaliated by entering the field of trust enterprise, so in like manner the savings banks—unable to check the invasion of their traditional field by the commercial banks (and of course by the trust companies), have broadened the scope of their operations by taking over commercial banking functions. They are, moreover, now aspiring to assume trust functions as well.[10]

II. POSSIBLE DANGERS OF DEPARTMENT-STORE BANKING

It has been urged by some that department-store financial institutions contain elements of serious weakness and that great care must be taken if we are to avoid a substantial deterioration in banking methods. There are two grounds for this contention. First, it is urged that such an institution becomes a Jack-of-all-trades and master of none—that "only by specialization can the highest efficiency be obtained." A sufficient answer to this contention, at least with large institutions, appears to lie in the fact that there may be just as efficient management of the specialized departments of a single business as of specialized distinct business. And in addition, as we have already seen, there is a decided advantage in bringing to bear upon the organization of the institution as a whole the varied knowledge and ability of the different department managers. The slightly greater percentage of trust company failures in the past is not to be attributed so much to the diversity of functions performed as to the low reserve requirements and other lax regulations imposed by state laws.

[9] See, for example, *The People* v. *Binghamton Trust Company*, 139 N.Y., 185 (1890).

[10] For a study of integration in the field of savings banking see W. K. Tang, *Savings Bank Development in the United States* (a Master's thesis at the University of Chicago), 1920.

Of more significance, however, is the possibility that such an institution might fail to keep the accounts of the different departments separate and to conduct each department on the principles demanded by the nature of its particular type of operation. Mindful of this possibility, the Federal Reserve Board requires of the national banks exercising trust company powers that

> the funds, securities, and investments held in each trust shall be held separate and distinct from the general funds and securities of the bank, and separate and distinct one from another. The ledger and other books kept for the trust department shall be entirely separate and apart from the other books and records of the bank.

If the legal regulations governing the operations of the various types of financial institutions are sound and if through regulation and supervision we make certain that the work of each department shall be conducted on correct principles, there would seem to be little occasion for concern over the future efficiency of our department-store financial administration.

III. THE UNIFICATION OF THE BANKING SYSTEM

The development of banking, as of other economic institutions in the United States, has been profoundly influenced by our dual system of government. We have already seen that until the period of the Civil War our banking system was quite chaotic because of the diverse legal regulations—or absence of them—in the different states of the Union. With the establishment of the national banking system we secured a uniform bank-note currency and, so far as the national banks were concerned, uniform regulation of banking operations. But the diverse regulations of state banking still persisted. Moreover, in consequence of the lessening importance of the note-issue function of commercial banks and the greater range of powers generally granted under state banking laws, state banks increased in number after 1885, as is indicated in the chart on page 340, even more rapidly than did national banks.

There is undoubtedly something to be said for this dual system in that it has given a greater scope for experimentation in banking than would otherwise have been possible. For example, the development of the department-store type of financial institution would probably not have been possible if all financial institutions had been chartered from the beginning by the national government; and certain it is that the extension of the privilege of making loans (within limitations) by national banks on real estate would long have been delayed had it not been for the competitive influence of state banks, which have always been permitted to lend at least a portion of their funds for such purposes. The establishment of the Federal Reserve System, however, revealed a striking weakness in our banking organization, one inherent in the dual system of government.

Under the simple conditions of industry that prevailed in Colonial days, the regulation of banking could well be conceived as essentially a local or state problem. But with the evolution during the nineteenth century of our system of large-scale interdependent industry which is intimately interwoven with the delicately adjusted financial structure, the problem of banking organization and control has been entirely changed. The interdependence of financial institutions, as we have repeatedly seen, is a striking characteristic of the credit system; whether under state or federal law, whether engaging in operations intrastate or interstate, the failure of any important bank has its effect upon the entire banking and credit structure.

When the Federal Reserve Act, therefore, undertook to mobilize the nation's resources and to prevent the recurring collapse of the credit system in times of panic, as well as to minimize the ebb and flow of business activity, it was apparent that the lack of control over state financial institutions was a matter of serious concern. How could a system, half-organized and half-unorganized, survive the credit strains of a period of financial crisis and how could such a system effect any substantial

control during the upward swing of the business cycle? In a word, how could a financial house divided against itself stand?

The admission of state banks into the Federal Reserve System has strengthened the credit structure.—The Federal Reserve Act made possible the entrance of state banks and trust companies into the Federal Reserve System under conditions to be formulated by the Federal Reserve Board. And in order to strengthen the financial structure as much as possible the Board early prepared and issued regulations relating to the admission of state banks to membership in the Federal Reserve System. Foreseeing the impossibility of inducing state institutions to enter the system if the broad powers that had been conferred upon them under state laws were curtailed, the Federal Reserve Board felt that the conditions of membership should not preclude state institutions from exercising their statutory rights under state laws as before. For example, they are therefore permitted to make loans on real estate security without regard to the restrictions imposed upon the making of such loans by national banks; although the Board reserved the right to refuse entrance into the system to a state bank which had so large a percentage of its loans invested in real estate as to impair, in the view of the Board, its liquid condition. The state banks were also given permission to withdraw from the system on a year's notice[11] if after trial they did not find membership advantageous.

A vigorous effort was made on the part of the Federal Reserve Board to induce the state banks to join the system. The great advantages of membership were pointed out; and veiled threats were made to the effect that in case the state banks did not join, in time of crisis they would be unable to secure any assistance in meeting the strain to which they would be subjected. But until after the United States had entered the European war the state banks were very reluctant to associate themselves with the Federal Reserve System. The arguments, mis-

[11] At present only six months' notice is required.

conceptions, and prejudices which explain their refusal to take early advantage of the opportunity to enter the system are best presented in the words of a state banker, as follows:

There are many reasons why state banks and trust companies should act with great deliberation with reference to entering the new Federal Reserve Banking System, and I will undertake to mention a few of them very briefly.

First, the law is made for national banks only. Until it shall be so amended as to be helpful and not detrimental to state banks and trust companies they should remain out of the system.

Second, those entering the new system will probably be subject to double examinations, both state and national, double reports, conflicting laws, unusual expenses, and a curtailment of privileges now enjoyed under state laws.

Third, at the present time state banks and trust companies are able to supply needs in their various communities for the development and promotion of business that cannot be supplied by national banks. This then brings us face to face with the best protection of the public and the fullest development of the country. The new law appears to me to have been especially constructed for and is now being administered largely for the benefit of big business and big undertakings. It has no functions thus far developed that appeal personally and directly to the small business man, merchant, small farmer, small stock-raiser, small manufacturer, or plain ordinary citizen. Of course, by aiding the large institutions, the system will probably indirectly aid the small ones.

In the fourth place, commercial paper is the great and important item to be used for rediscounts at the Federal Reserve banks. This can be issued and is issued only by large concerns moving great quantities of merchandise or products and receiving quick returns on the same in cash. Theoretically this is fine, but unfortunately all of the business of the country is not and cannot be turned over inside of thirty, sixty, or ninety days. There should therefore be some financial institutions in the country that can take on at least a limited amount of such business which is sound, safe, and secure, but not as quickly liquid as the preferred classes mentioned in the reserve bank act.

Fifth, customers of country banks know very little about making statements, and it would be very difficult for a country bank to meet the "red-tape" requirements of the Federal Reserve banks when discounts are needed. A statement must be filed for the maker of each note offered for rediscount, certain application blanks must be filled out and filed, and a great deal of necessary routine gone through before a loan can be secured or paper rediscounted. I believe the small member banks and non-member

banks must rely, as heretofore, largely upon their correspondents in the larger centers to supply them with funds as needed for emergencies. Fortunately, such banks do not need accommodations very often.

Sixth, it would be very dangerous to place the entire banking business of the country under the control of a federal board at Washington. No other free country that I know of has ever succeeded in forcing all banking institutions to come under absolute governmental control.

Is it not unwise to take on the risks and the obligations entailed by becoming members of the reserve system when it is not necessary to do so? While there are benefits and advantages to those banks that are members of the system, these are more or less counterbalanced at this time by the risks, curtailment of privileges, limitation of functions, added expenses, and other disadvantages offered by the system.

State banks and trust companies are in a very fortunate position, both for themselves and for their patrons, in being able to stand aside during the formative period—we might say the experimental stage—of the new national banking system and steady the financial ship while the national banks trim their sails and adjust their craft to suit the current of the new stream. These twenty thousand or more state banks and trust companies, remaining serene and undisturbed, are able to take care of their business in the usual way, co-operating at all times in a most friendly and patriotic spirit in bringing the new national system to its highest efficiency and most perfect state of usefulness.[12]

Shortly after the entrance of the United States into the war a new drive for securing the membership of the state banks was undertaken. Mobilization was the task of the time, mobilization of the army and navy, mobilization of manpower and womanpower, mobilization of labor, mobilization of industrial resources. Why not, therefore—most important of all—mobilization of the nation's financial resources? President Wilson seized the psychological opportunity and issued a stirring appeal to state bankers to join the Federal Reserve System and thereby to effect a complete mobilization of the banking resources of the United States. He urged that "co-operation on the part of the banks is a patriotic duty at this time and membership in the Federal Reserve System is a distinct and significant evidence of patriotism."

[12] Frank N. Briggs, adapted from an address before the Colorado Bankers Association, June 30, 1915.

While this appeal doubtless had no little effect, the credit strain to which the individual banks were already subjected was probably a more potent influence in inducing the state banks to affiliate with the Federal Reserve System. The expanding volume of business conducted at ever increasing prices—as explained in chapter xxv—necessitated access, directly or indirectly, on the part of the state banks to the central repositories of reserve money. The apathy that had previously prevailed with reference to the rediscount privilege was thus changed as if by magic to the liveliest interest. It had become highly profitable to affiliate with the Federal Reserve System. The number of state banks and trust company members increased from 37 at the end of 1916 to 930 at the end of 1918.

Membership in the system continued to increase for a time after the close of the war, but more recently there has been a decrease. The peak of membership was reached in 1922 when 1,639 state institutions belonged to the Federal Reserve System. In May, 1925, however, the number was down to 1,513, a decrease which has occasioned some uneasiness over the future consolidation of our banking system. The decrease in membership was due in part to failures of banks in the agricultural districts, in part to consolidations, in part to the conversion of state into national banks, and in considerable part to withdrawals from the system. So far as numbers are concerned, only one-twelfth of the state banks are now members of the Federal Reserve System; but since nearly all of the large state institutions, including trust companies, have become members, more than one-half of the total resources of state banking institutions are incorporated in the system. Including all types of financial institutions, about one-third are members of the Federal Reserve System, but these possess over 70 per cent of the entire banking resources of the nation.

IV. THE DEVELOPMENT OF BRANCH BANKING

The possibility of developing an extensive system of branch banking in the United States has given rise to considerable dis-

cussion during the past few years. In most foreign countries there are only a comparatively few large banks in the financial centers, each of which has hundreds or thousands of branches both in the same city and in outlying parts of the country. In the United States, on the other hand, we have organized thousands of separate and distinct banks connected with one another only through "correspondent" relations. It is believed by many students of the problem that the development of branch banking in this country would materially improve the management of our banking institutions and more closely consolidate them as parts of one great commercial banking system.

Branch banking in the United States has been specifically authorized by the statutes of 17 states; 17 other states specifically prohibit branch banking; and 14 states have passed no legislation on the subject. Under the national banking act, national banks are not permitted to establish branches, although they may operate branches which have been acquired by merger with the state institutions, or branches established under state charter prior to becoming a national bank. In 1924 there were 681 banks out of a total of 28,468 national and state banks in the country which operated branches. The number of branches in operation was 2,233 or an average of a little more than 3 to the bank.

California has experienced the greatest development of branch banking. In June, 1924, out of a total of 576 banks, 99 operated branches, the number of branches being 538. One California bank operates 88 branches; and a state bank in New York City operates 57, all located within the city limits.

In the case of national banks, the branches are nearly always all in the same city with the head office; as has sometimes been stated, they are merely additional "tellers' windows." In the case of the state banks, about one-third of the branches are outside of the home city. The cities which have had the most extensive development of branch banking are New York, Detroit, and Cleveland.

The advantages of the branch banking system, particularly in cities, are: First, it insures better management of the outlying banks than on the average results from the establishment of independent institutions. The methods of banking administration and credit analysis employed in the branches are profoundly influenced if not directly controlled by the method used in the parent-bank. Second, the branch banking system articulates outlying banking agencies more closely with the central reservoirs of credit than does an independent banking system even with well-developed "correspondent" relations.

The chief objection is raised by vested interests who do not wish to have their banks subjected to the competition of branches, nor to lose their own identity by becoming themselves branches of larger institutions. The objection is also urged that such a banking system is not in accordance with the "genius of American institutions," which means that it is not in accordance with the doctrine that extreme individualism is the best means of economic progress.

Pressure is being brought to bear upon Congress for a revision of the national banking law authorizing national banks to establish branches. As matters stand, the inability of the national bank to create branches in states where the state banks are permitted to have branches is one of the factors causing national banks to surrender their charters and to become state banks instead. It is frankly feared that unless the national banking act is revised so as to permit national banks to establish branches in states where the state banks are permitted to establish them, the withdrawal of banks may seriously weaken the Federal Reserve System and retard the processes of financial integration and consolidation.

QUESTIONS FOR DISCUSSION

1. To what extent do the banks with which you are familiar specialize in some particular form of financial enterprise?
2. Do you imagine that some one department of a non-specialized insti-

tution is of paramount importance, with the others merely incidental, or that all are of relatively equal importance?

3. If you were to organize a bank of ample resources, how many departments would you create? What conditions would determine your policy in this connection?
4. Examine the mutual and stock savings bank balance sheets on pages 309 and 315 and estimate the relative importance of the commercial business in each class of savings institution.
5. Do savings bank balance sheets show whether the bank conducts a bond or trust department?
6. Would the balance sheet of a trust company indicate the extent of (*a*) its trust business (of the various types); (*b*) its underwriting activities; (*c*) its savings business?
7. Does the balance sheet of a commercial bank indicate (*a*) its savings business; (*b*) its bond transactions; (*c*) its trust business?
8. What conclusions do you draw from a study of the tables on pages 720 and 721?
9. "The tendency toward financial integration is caused by the same forces that have produced integration in industry." Discuss this statement.
10. Draw up a list of the advantages of the department-store type of financial institution. Draw up a list of the disadvantages.
11. "All that is necessary to safeguard department-store banking is to require the operations and accounts to be kept entirely separate." Why?
12. "It is only in the larger cities that the department-store type of institution could prove successful." Do you agree?
13. "In towns and smaller cities there is not enough financial business to support several different types of financial institutions. If the community is to be adequately served with financial facilities, therefore, a single bank must be permitted to do various kinds of business." What do you think of this statement?
14. How do you account for the fact that financial legislation originally intended to force the development of specialized financial institutions?
15. How do you account for the fact that writers on the theory of banking have usually written as though the different types of financial operations were conducted by specialized institutions?
16. "The enormous profits from promotions, underwritings, and security purchases in the investment field have led to a revolutionary change in the conduct of our leading banking institutions. It was obvious that control by the investment bankers of the deposits in banks and trust companies was an essential element in their securing these huge profits. And the bank officers naturally asked, 'Why, then, should not the banks and trust companies share in so profitable a field? Why should

not they themselves become investment bankers, too, with all the new functions incident to Big Business?' To do so would involve a departure from the legitimate sphere of the banking business, which is the making of temporary loans to business concerns. But the temptation was irresistible. The invasion of the investment banker into the bank's field of operation was followed by a counter-invasion by the bank into the realm of the investment banker." Do you regard this tendency as inimical to sound banking?

17. "Unquestionably the special temptation to which our banks are now subjected is the temptation to turn from commercial to financial banking; to change from the buying and selling of commercial credit to investments in securities and loans extended to promote financial enterprise; in short, to change their business from that of commercial banks to that of finance companies. Concentration in banking,[13] which is going on at such a rapid rate in New York, would not be open to much or any criticism if such concentration was employed for the purpose of facilitating the commerce of the country instead of being used in purely financial undertakings." Criticize this statement.
18. A few years ago the president of a large New York bank stated in a public address that it was bad banking practice for a commercial bank to invest its funds in anything but paper growing out of short-time commercial transactions. At the time his own bank's balance sheet showed "Investments in bonds, securities, etc.," equal to nearly 25 per cent of the total "Loans and discounts." How do you account for his statement?
19. How do you explain the development of savings departments by commercial banks? of bond-distributing departments?
20. Should the commercial paper house be allowed to invade the field of investment banking?
21. Why does not the commercial paper house assume trust, saving, and commercial banking functions? May it some day conceivably do so?
22. Why do the commercial banks not organize affiliated commercial paper houses, as they do, in fact, organize affiliated cattle loan companies?
23. How do you explain the extension of commercial banking powers to trust companies? Do you think it was a mistake?
24. How do you explain the active opposition of the commercial banks to the invasion of their field by the trust companies? Would the opposition have been as bitter as it was if the trust companies had been subjected to as strict legislative regulation and supervision as were the commercial banks?
25. How do you account for the extension of trust powers to commercial banks? Do you think it unwise?

[13] See pp. 755–56.

26. How do you account for the opposition of the trust companies to the entrance of national and state banks into the trust field?
27. In what respects has the banking system been "unified" as a result of recent banking legislation?
28. How do you account for the persistent growth of state banking in the United States? In what respects may this be regarded as having had advantages? Disadvantages?
29. "The industrial and financial structure is essentially national in scope. Therefore the control of our banking organization should be exclusively vested in the national government." Do you agree?
30. "The phenomena of the business cycle conclusively demonstrate the desirability of a unified banking organization." If so, how?
31. How would a system of branch banking improve bank management?
32. In what way is it expected that branch banking would more closely knit the banks of the country together into a system?
33. Should banks that belong to the national banking system be permitted to withdraw from the system in order to establish branches and then subsequently to rejoin the Federal Reserve System with branches?

CHAPTER XXX

THE FINANCIAL SYSTEM AND THE GENERAL ECONOMIC ORGANIZATION

Our study of the work of the various financial agencies and institutions which together comprise the financial structure of the modern economic system is now completed. It remains to attempt in this final chapter a statement, however inadequate, of the significance of this financial structure from the point of view of the general economic organization of which it forms so integral and so important a part. What, in general, are the elements of strength and of weakness in an economic system that is organized on a pecuniary basis? What problems of economic or social control have resulted from the evolution of the modern financial system? Does this system in all respects give rise to a well-ordered economic life and—to borrow a statement of the ends and aims of human society that has yet to be improved upon—does it on the whole "promote the greatest good of the greatest number"? It is scarcely necessary to say that a satisfactory or adequate answer to these questions is impossible; all that can be attempted in this chapter is to make some suggestive statements with reference to the economic significance of the modern financial system and to the nature of the unsettled problems of economic control to which this system has given rise.

The economic services rendered by the various parts of the financial structure have in preceding chapters been discussed in connection with the work of particular financial institutions and agencies. Here and there also in the course of the treatise there have been some suggestions of the interrelations of financial institutions—of the development of a financial structure—and of the larger significance of this financial system in relation to the general economic organization by means of which the wants of

mankind are supplied. The analysis of the present chapter will therefore consist in part of a drawing together of the threads of our previous discussion. It is believed that such a recapitulation, with the necessary elaboration and restatement, will present a reasonably complete and accurate view of the interdependence of finance and business—of the relation of the financial system to the general economic organization.

I. MERITS AND DEFECTS OF THE PECUNIARY MECHANISM

The pecuniary system has undoubtedly rendered economic services of the greatest importance. It will be recalled that the evolution of the pecuniary unit rendered both language and numbers intelligible for the purposes of business and thus furnished the necessary basis not only for all trade but for all business activity. In a very real sense the pecuniary unit of calculation, together with the medium of exchange and the standard of deferred payments, have not only made possible but have been responsible for the development of our large-scale co-operative exchange society, which, with all its weaknesses and evils, is almost universally conceded to be a highly efficient form of economic organization, so far as its productive aspects are concerned. It will also be recalled that the system of pecuniary accounting stimulates and hastens the development of improved productive processes and fosters industrial progress.

In the main it may also be said that the financial system has been fairly responsive to changing business requirements. The growing size of business establishments and the gradual universalizing of the credit method of conducting business has been attended by a commensurate—though often lagging—development of facilitating financial agencies and institutions. Indeed the whole complex financial structure, pictured in the charts on pages 163, 165, and 625, and discussed in the accompanying chapters, evolved to meet the needs of a rapidly changing economic organization—a changing organization for which the

motivating force was mainly the prior development of the pecuniary unit and the capitalistic form of enterprise, dominated by the spirit of gain. It will doubtless be conceded that the various financial institutions thus developed, notwithstanding the numerous weaknesses that have been pointed out in the foregoing chapters, have, in view of the remarkable rapidity with which the capitalistic industrial system has expanded, fulfilled in reasonably satisfactory fashion the requirements imposed upon them.

The financial organization also has some very real shortcomings.—At various places in the foregoing analysis attention has been called to certain perversions and evils in the pecuniary system. In chapter iv, for example, emphasis was placed upon the dominating and pervasive influence of the pecuniary system over social and economic standards and ideals. It was seen that the almost universal expression of modern economic activities and achievements in pecuniary terms has led to an exaltation of the significance of money that has done much to pervert the ideals of society. While even under a non-pecuniary system individuals would no doubt place great emphasis upon things material; and while it is highly important to bear in mind that the modern worship of the "almighty dollar" is in a sense only the worship of the material goods which dollars will buy, there is little doubt that the development of the pecuniary system has tended to strengthen materialistic impulses and to intensify the struggle for gain. The acquisitive instincts of mankind appear to find greater encouragement as well as fuller scope for development under a pecuniary system than under any other suggested form of social organization.

Moreover, as we have seen, the importance to the individual of a large supply of money has led to the all but universal assumption that it is equally important that the nation as a whole have a large and a rapidly increasing supply of money. This fallacy has been responsible for numerous and persistently recurring social movements for increasing, in one way or another, the

national supply of currency. All men are instinctively mercantilists and all instinctively rejoice when the per capita circulation increases; hence a not inconsiderable portion of organized political activity in every country has centered around the attempt to achieve through an increase in the quantity of currency an improvement in economic conditions which can come only through an increase of productive efficiency. It remains true, however, as has been noted in various connections, that the supply of currency as manifested in bank reserves is at times a matter of no little significance.

Among the shortcomings of the pecuniary order we have also noted the social and economic consequences of changes in the level of prices. This is no doubt the most serious weakness of the financial system. While no attempt has been made in this treatise to discuss the complex forces which control price movements in a capitalistic society, we have seen that prices are in a more or less constant state of flux, with minor oscillations in connection with the various stages of the business cycle, and with major secular movements, as indicated in the diagram on page 27. Price changes, as noted in chapter ii, often cause very serious maladjustments in the incomes of different classes of society and result in social discontent, which on occasion may lead to a very general disorganization of economic, social, and political life. The individual, compelled to order his life in pecuniary terms and through pecuniary agencies, is powerless to control his destiny in the face of price movements that depend, so far as he is concerned, upon entirely adventitious circumstances.

The modern business man also finds his productive activities circumscribed at every point by financial considerations, over many of which he has but little control. Sudden changes either in the price of his particular product or in the general level of prices may at one time give him exceptional profits and at another bring him to the verge of bankruptcy. While price movements may to some extent be forecasted and, in consequence, preparations may be made for taking advantage of a rise or for

discounting the effects of a fall, it is seldom possible to avoid all losses incident to price changes; and for the rank and file of business men who are quite without knowledge of the influences governing price movements, price changes constitute perhaps the most baffling problem with which they have to deal.

Prices should be stabilized if possible.—The economic and social losses resulting from price changes have naturally given rise to various suggestions for controlling or stabilizing the level of prices. We cannot here enter upon a discussion of the different methods proposed, or of the possibility of stabilizing prices by any conceivable method. It must suffice to say that as yet no method of general price control has been devised which commands sufficient support in government circles to secure a thoroughgoing practical test. The method of price stabilization that has attracted the greatest attention is that advanced by Professor Irving Fisher, and is known as the compensated or stabilized dollar. Under this plan it is proposed to vary the weight of the gold dollar in which prices are expressed, in proportion to changes in the number of monetary units, thereby preventing variations in the general level of prices.[1] Among students of money and prices this method of price control has many supporters—and numerous opponents. Another method of price regulation lies in the control of the supply of bank credit through the machinery set up by the Federal Reserve System. This will be briefly considered on pages 747.

One is tempted at this place to enter into a general discussion of the adequacy of the price-and-profit mechanism as a means of effecting the distribution of social energy, under conditions where it is allowed free play—subject to no governmental interference in the form of price or rate control. Does the price-and-profit method of industrial motivation always promote social welfare? Does it, for example, have as its goal "necessities for all before luxuries for any"? Does it not often lead to the rapid and visionless exploitation of natural resources? Is it

[1] See Irving Fisher, *The Stabilized Dollar.*

not, in fact, essentially a system where relatively short-run pecuniary considerations govern, whereas the promotion of national welfare requires essentially a long-run point of view? Since these considerations are not, however, exclusively of a financial nature, but involve the whole question of individual initiative, private property, free competition, etc., they do not properly come within the scope of the present treatise, which is concerned only with the pecuniary aspects of the modern economic system.

II. THE RÔLE OF FINANCE IN MODERN ECONOMIC ORGANIZATION

One of the most striking features of the modern economic world is the institution of credit. Whether in commerce, industry, or agriculture, modern business enterprise is almost always dependent upon the use of borrowed funds; and, as we have seen, the numerous financial agencies and institutions of the present time have been developed largely for the purpose of facilitating the raising of the fixed and working capital required in the conduct of business. The evolution of this "credit society," as it is often called, has resulted in creating an economic organization in which all business enterprises, all institutions, and all individuals share in a common dependence upon the smooth working of an intricate and exceedingly sensitive financial mechanism, over which they have little control, either individually or collectively.[2] The chart on page 165 indicates that the borrowing corporations at the top are dependent for the fixed capital required in developing their properties upon the supply of funds procurable in a general investment market, which, in last analysis, means upon the diversion of individual incomes from consumptive spending to the purchase of securities, either directly or through the intermediation of savings institutions. (The rôle that commercial banks play in the in-

[2] Bankers are excluded here; to be considered in the section which follows.

vestment market should, however, be recalled in this connection.) Similarly, for working capital, they are dependent upon the commercial credit market, that is to say, upon the commercial banking system and the supply of liquid capital which it possesses.

Under ordinary circumstances, and considered individually, no business enterprise, which is in a sound financial position, need find this dependence a cause of any concern. But collectively speaking, borrowing corporations not infrequently find that the supply of credit both for fixed- and for working-capital purposes is inadequate to their requirements—either because of an insufficient volume of saving, an outflow of reserve funds from the country, an increase in the volume of business beyond the credit capacity of the banks, or a rising price level which requires a steadily expanding volume of liquid capital with which to effect a given volume of production. Whatever the particular cause, every individual business finds its productive operations seriously hampered, and society as a whole suffers in consequence of restricted output. Moreover, because of the phenomena of the business cycle, itself a result of the evolution of the credit system, there are times, as we have seen, when the entire business and credit structure is completely disrupted, resulting in unemployment for millions of persons and financial failure for thousands of business concerns whose only fault lies in being unfortunately placed in the economic system.

Business corporations and individual workers are dependent upon the smooth functioning of the credit system not merely for the regularity of profits and wages; as investors in corporate securities they are also dependent upon it for the safety of their savings and the perpetuity of interest payments. As the chart on page 209 indicates, literally almost every individual and every institution is, under modern conditions, vitally interested as an investor in the efficient working of the financial system. Corporations and other business concerns are obliged to invest reserve and similar funds in the securities of other corporations;

banks, insurance companies, clubs, educational and charitable institutions, labor union organizations, and trust estates—all are of necessity holders of corporate securities; and, under a pecuniary order, the individual laborer or salaried man can effect the savings required for sickness and old age only through the investment of pecuniary income, directly or indirectly, in the bonds and shares of corporate enterprises. To a greater or less degree all classes are thus mutually dependent upon the efficient functioning of the pecuniary mechanism; all have a stake in the promotion of financial solidarity and financial prosperity; and, what is more significant, all have vested pecuniary interests in the maintenance of the existing economic system.

III. THE DOMINANT POSITION OF THE FINANCIER

The evolution of the credit system has also resulted in placing those who control the distribution of liquid capital in a position of supreme importance in the modern scheme of things; it has given rise to "a class of pecuniary experts whose business is the strategic management of the interstitial relations of the system." We have already indicated, in the chapters on the marketing of corporate securities, that there is lodged in the hands of investment bankers a substantial measure of control in distributing the flow of labor and capital among the various divisions of industry and among the different establishments within any given field of enterprise. We shall presently have more to say with reference to this control under conditions of large-scale and highly concentrated finance and business such as exist at the present time; but before entering upon the discussion it is necessary to indicate, more precisely than has been done in preceding chapters, the rôle that the commercial banker plays in guiding and controlling industrial activity.

In the making of loans for working-capital purposes commercial bankers, as we have seen, form their judgment as to the safety of the loan on the basis of personal knowledge of the

applicant's moral integrity and of his financial ability and resources, as revealed in a financial statement of condition. If, in the judgment of the commercial bankers, a particular borrower in a given line of industry is not entitled to credit, there is little chance of his survival in competition with others whose credit standing is unimpaired. Since the possession of adequate working capital is quite as indispensable as the possession of fixed capital, the commercial banker thus in a sense holds the veto power over the decision of the investment banker, even as the investment banker holds the veto power over the decision of the manager of a corporation which is seeking to raise fixed capital. And certainly, it will be observed, the dependence of almost every business upon both investment and commercial bankers results in giving to these financiers a preponderant influence in the control of the development of industry.

The influence of the commercial bankers is of particular importance by virtue of the fact that their relations with borrowers are usually continuous, rather than intermittent. Since they are called upon to furnish credit year in and year out, it is necessary for the commercial bankers to scrutinize continuously the financial status of their customers; accordingly, they are privy to the most intimate affairs of producers, manufacturers, and distributors of goods, as well as of those who are engaged in financial or speculative activities. They find it expedient to give advice and counsel in the formation of business policies; and because of their control of the requisite financial resources, they are commonly in a position to exercise a restraining influence. Moreover, when occasion arises they can withhold credit and compel a financial reorganization of a business and a change of management and policies. Whether such financial power will be exercised for good or for ill—with or without sinister intent—obviously depends upon the personnel of the banking profession. On the whole, there has been remarkably little legitimate criticism leveled against the control over commerce and industry by commercial bankers. One of the oldest of business pro

fessions, the banking fraternity, has developed a tradition that it is a duty to exercise the great power which it possesses without fear or favor and in such ways as to promote the development of sound business enterprise. Everyone with business experience can of course cite instances where this tradition has not been realized; but such cases are undoubtedly the exception rather than the rule.[3]

The control of credit by individual bankers has proved inadequate for the requirements of the modern business cycle.—The analysis in chapters xxii and xxiii reveals a very striking weakness in the system of banking control over business. With the evolution of our delicately adjusted interdependent credit system—national and international in scope—it became impossible for bankers, acting as individuals, to exercise the degree of control over general business conditions that was required. While any particular banker might withhold or extend credit to his individual customers in accordance with their respective moral and financial merits, under our decentralized banking system bankers in general could not, however, control business in general, in accordance with the requirements of the various stages of the business cycle. The result, as we have seen, was a periodic disruption of the entire credit structure. The supersedure of this decentralized method of banking control by a system of government supervision, vested in the Federal Reserve Board, has resulted in materially lessening the functions of the private financier in the control of business, and has brought into existence a body of what may be called "public financiers," whose influence over economic affairs is of far-reaching importance.

Extraordinary economic power has been vested in the Federal Reserve Board.—It is the duty of the Federal Reserve Board and of the directors of the Federal Reserve banks so to control the operation of economic and financial forces in connection with the business cycle that financial panics may be eliminated and the extent of the fluctuations in business activity may

[3] But see pp. 758–59.

be substantially lessened. To this end there has been lodged in their hands a control over interest rates and over the supply of credit that enables them to wield a tremendous influence over general business conditions. It should be recalled that by virtue of the dominant place that commercial banking occupies in the entire financial and business structure, the control of the Federal Reserve Board extends to the utmost confines of the economic organization. Concretely, the fixing of very high interest rates and the restriction of credit can precipitate a fall in general prices, a great contraction of the volume of business and consequent decline of profits, a reduction of wages, and a great increase in the volume of unemployment, together with a collapse of stock-market values, a limitation of the activities of underwriters and bond distributors, and an unsettling of the entire credit system; and conversely, by a policy of very low discount rates, together with the release of all restrictions on credit extension, as a means of encouraging business optimism, the Federal Reserve Board is frequently—though not under all circumstances—in a position to stimulate business activity, increase profits and wages, give steady employment to all who care to work, and facilitate the marketing of investment securities and the financing of new business enterprises. Because of the nature of the modern pecuniary and credit system, as revealed in the phonomena of the business cycle, such a stimulation of business activity, however, usually leads to rising prices, unaccompanied by a continuous increase in the output of wealth, and culminates in an economic crisis, followed by an era of liquidation and a readjustment of prices and business conditions generally. Such enormous power and so great a responsibility have never before, in this country, been conferred upon any group of individuals.

The measure of control that may conceivably be exercised by the Federal Reserve Board in stabilizing prices and in minimizing the ebb and flow of business activity is open to a great deal of question. The experience of European countries, where

the directors of the Central banks have long held a position in the European financial and business world similar to that occupied by the Federal Reserve Board in the United States, throws no little light on the problem. In brief, it has been possible for the European Central bank directors to prevent acute financial panics and to control in some degree the extent of the upward swing of the business cycle. But they have by no means been able to control prices, or to eliminate or even greatly reduce the ebb and flow of business activity, and thus to usher in the "normal" or static state which is at once the point of departure and the goal of classical economic analysis. In the face of the financial requirements of war, moreover, the European Central banks, as well as our own Federal Reserve System, have found it practically impossible to prevent a very general disruption of the entire price-and-credit system.[4]

While the centralization of financial control in the hands of the Federal Reserve Board will likewise doubtless result in preventing panics and in lessening somewhat the oscillation of business, judging from experience there is little ground for hope that it can give us either stable prices or continuous prosperity. The extent of the influence that can thus be exerted will, moreover, largely depend upon the wisdom and impartiality with which the vast power that has been placed in the hands of the Federal Reserve Board is utilized; and this in turn will depend upon the degree of knowledge which its members possess of the working of the complex economic forces that operate in the modern capitalistic and industrial system, as also upon their freedom from the influence of either personal or political considerations.

IV. INTERNATIONAL ASPECTS OF FINANCIAL ORGANIZATION

Of necessity this volume has been largely devoted to a discussion of the financial organization of society as revealed in the

[4] For a statement of the attitude of the Federal Reserve administrators on the subject of price control, see pp. 616–17.

United States of America. While here and there reference has been made to the financial institutions of other nations, there has been no attempt to make a comparative study of the financial systems of different countries, nor has it been an essential part of our task to indicate the relationship of the financial system to the world-aspects of modern economic organization. At a few places in the treatise, however, we have necessarily been drawn into a discussion of certain phases of the system of international finance. In the chapter on the foreign exchanges we saw how international commercial and financial obligations are largely canceled through the use of bills of exchange; how the world-supply of metallic currency is ordinarily distributed among the various nations of the world in rough accordance with their relative needs; and how the international financial equilibrium is maintained through the operation of the foreign-exchange mechanism.

We have also seen in various connections that the system of interdependent credit relations is now world-wide in scope. When the great speculative mania in the Argentine in the decade of the eighties, accompanied by the issue of vast quantities of irredeemable paper currency, collapsed in 1890 it resulted in the failure of one of the greatest international banking houses of England, all but precipitated a general financial panic in Europe, and led to a very serious unsettling of American financial conditions. Similarly, financial difficulties in Japan and Egypt in 1906 contributed to the forces that were bringing on the American panic of 1907, while the repercussions of this panic in the United States were felt in every market of the world. In a word, business cycles are world-phenomena and the modern financial structure is essentially international in its scope. The world has reached a point in the development of its organized economic activities where national boundaries are of relatively little significance, notwithstanding the numerous economic barriers that have been erected by political states.

The growing interdependence of the financial systems of dif-

ferent countries and the development of an international financial structure give rise to the suggestion that if the financial system is effectively to perform its functions in assisting and regulating the modern economic organization, some system of international control must ultimately be devised. It may be argued that just as the growth of a national, as distinguished from a local, basis of economic organization destroyed the efficacy of local and state control of finance and business and required the development of a system of national supervision, so the evolution of a world-economic and financial system requires the creation of an international supervisory board or commission. It required, in all countries, the greater part of a century following the development of a national economy to evolve a system of financial control that was of commensurate scope and power. Who can say what another century may not bring forth in the way of an international financial organization?

V. THE CONCENTRATION OF FINANCIAL POWER

One of the most striking features of the modern economic and financial system has throughout the discussion of the preceding chapters been neglected, namely, the development of huge financial institutions and consolidations akin to those in the field of commerce and industry. So significant is the development, in view of the potential power and influence over the general economic organization that it may give to the directors of the financial system, that it merits special consideration in this concluding chapter. The discussion will, it is believed, give added point to the problems of national and international control outlined in the preceding section.

There was presented in the chapter on "The Corporation as a Capital-raising Device," a general outline of the various stages in our industrial development since the Middle Ages. It will be recalled that the last stage of this industrial evolution, beginning shortly before the end of the nineteenth century, was

marked by a phenomenal consolidation movement in commerce and industry and the emergence of what is commonly designated as an era of monopoly or trust control. Now the development of this large-scale corporate enterprise, together with the uniting of hitherto independent concerns into gigantic combinations in the fields of transportation, manufacturing and commerce, were necessarily paralleled in the fields of both commercial and investment banking. Indeed, the two movements have developed hand in hand, each having been necessary to the continuance of the other: the growth of huge banking institutions made possible the assembling of the capital required by corporate consolidations; and, conversely, the development of giant-scale corporate industry required and made profitable the development of financial institutions of commensurate resources.

The concentration of financial resources was effected to some extent by the organization, *de novo,* of banking institutions of very large size, but more largely by a process of affiliation[5] and consolidation of existing institutions. The period of most rapid evolution in this direction coincided with the era of industrial combination, namely, the fifteen years from 1897 to 1912. The total number of banks in New York decreased from 130 to 120 during the ten years from 1901 to 1911. In 1896 the largest bank in New York City had less than 30,000,000 of deposits; by 1911 there were six New York institutions with more than 100,000,000 each; while in the five years from 1907 to 1912, one New York trust company increased its deposits from 20,000,000 to 166,000,000.[6] In the year 1911 there were ten banks in the United States with deposits in excess of $75,000,000 each, seven of them located in New York and two in Chicago.

A factor of no little importance in furthering the movement toward financial concentration, particularly in the years after 1907, was the desire to strengthen the financial structure and to

[5] For a statement with reference to the affiliation of commercial banks and trust companies see p. 723.

[6] Some allowance should be made in these figures of growth, for the 30 per cent increase in the price level between 1900 and 1911.

render less abortive the efforts of the banks to co-operate in future emergencies for the control of financial crises. In the words of Noyes:

> The bank suspensions, in New York particularly, during the panic of 1907, emphasized the dangers created for the community at large by weak or ill-managed institutions in a central money market. Finally, the incidents of that panic—including the temporary breakdown of credit facilities, the distrust by banks of one another, the lack of quick and effective co-operation to relieve the crisis—taught the supreme necessity for a banking power strong enough to meet the worst emergency. Concentration of the banking resources at the country's money center is, in the absence of a central institution such as the Bank of England, the only means of controlling, promptly and effectively, a crisis of that kind.[7]

A similar consolidation of banking institutions has occurred in other countries, particularly in Germany, where it has been carried much farther than in the United States. The movement in Germany is attributable to the same forces that were operating in the United States, plus the added one of governmental support as a means of furthering Germany's financial and trading operations overseas. The financial crisis of 1901 was a particularly potent factor in promoting the consolidation of German banks, a large number of small banks being rescued, as it were, from the financial rocks on which they found themselves by incorporation into or affiliation with the powerful institutions that survived. Within five years the Deutsche Bank absorbed forty-nine smaller banks; the Dresdner Bank, forty-one; and the Discontogesellschaft, twenty-eight. Of such unparalleled magnitude has been this German financial concentration and of such importance is it to an adequate appreciation of the possibilities of control of all economic life which under favoring conditions may be vested in a relatively small group of financial directors, that a fuller statement is warranted before returning to a consideration of the results of the financial concentration movement in the United States. According to Hauser:

> In some cases the great banks simply annexed those institutions which were previously autonomous, and took over the business of menaced es-

[7] Alexander D. Noyes, *Atlantic Monthly,* CXI (1913), 653.

tablishments, converting them into branches. More often they allowed them to continue in existence for form's sake, contenting themselves with financing them, or perhaps acquiring a sufficiently large number of shares in these concerns to assume their effective control. Sometimes, also, in order to study appearances still more, an exchange of shares was the medium employed; the absorbing bank and the bank absorbed reciprocally delegated their directors from one board to the other.

With these banks they formed groups. As the banks thus absorbed or mediatised had themselves in most cases arrived at a certain stage of concentration, as they had their branches and daughter institutions, it followed that groups of groups, formidable unions, were formed. When the Deutsche Bank by means of an exchange of shares made itself master of the Bergisch-Markische Bank of Elberfeld in 1897, the latter had already thirteen branches, having successively absorbed half a score of Rhenish banks. A whole block of concerns thus passed into the control of the great Berlin bank at one stroke.

To achieve transformations of this magnitude enormous augmentations of capital were necessary; that of the Deutsche Bank rose in two years from £1,000,000 to £9,000,000 and in the following year to £10,000,000. This total was also in 1911 that of the Dresdner and the Disconto. The Darmstadter capital reached £8,000,000, the Schaafhausen £7,250,000, the Berliner Handelsgesellschaft £5,500,000—a total of more than £50,000,000 for the six institutions. Some provincial banks, the Rheinisch-Westfalische Discontogesellschaft and the Rheinische Credit Bank, each with £4,750,000, exceeded the other metropolitan banks such as the Nationalbank, the Commerz and Disconto Bank, etc. Banks whose capital in each case exceeded £3,000,000 represented a total capital of £87,250,000.

But side by side with the actual power of each bank, it is necessary to consider that of the group which it directs. By the absorption or the affiliation of the Bergisch-Markische, the Schlesischer Bankverein of Breslau, the Hannoversche Bank, the Mecklenburger Hypotheken and Wechselbank, and the Essener Creditanstalt, the Deutsche Bank has attained the position of controlling in reality a total capital of £34,550,000, or of £48,950,000 with the reserves.[8]

The Disconto (with the Norddeutsche Bank of Hamburg, the Allgemain-Deutscher Creditanstalt of Leipzig, the Barmer Bankverein, the Süddeutsche Discontogesellschaft of Mannheim, and the Bayerische Disconto and Wechslerbank of Nuremberg) controls £25,200,000—with reserves £33,100,000. The Dresdner controls the Markische Bank of Bochum, the Rheinische of Essen, and the Mulheimer Bank, £12,650,000 and

[8] "Reserves" here means surplus and undivided profits.

£16,150,000. The Darmstadter represents £10,950,000 and £13,000,000; the Schaafhausen (principal satellite the Mittelrheinische Bank of Coblenz) £8,600,000 and £10,450,000. In all, the share capital and reserves of these groups represent a total of £137,500,000.

At times banks pass from one group to another, for there exists among the controlling houses of the banking groups a spirit of emulation and rivalry which drives them to absorb as many concerns as possible. It was in consequence of a struggle between the Deutsche Bank and the Dresdner for the domination of Westphalian industry that the former absorbed the Bergisch-Markische. The Dresdner in its turn nearly absorbed the ancient Schaafhausen Bank; and on the eve of war the Disconto was trying to make similar conquests.

By the side of these rivalries we find ententes. The great banks sometimes form among themselves "Interessen-gemeinschaften"—communities of interest—"species of banking cartels which concentrate formidable amounts of capital to one definite activity"—maybe for the exploitation of a particular industry, or perhaps for the creation and the management of a secondary bank. At times also this community of interest unites two banks of secondary rank. Thus we read in the financial announcements in the German newspapers: "Interessen gemeinschaft: Rheinische Creditbank Mannheim—Pfalzische Bank, Ludwigs-hafen"—not a "consortium" for a pre-determined transaction, but a permanent alliance.[9]

The extent of financial concentration and the nature of the intricate interrelations of finance and business that have developed in the United States were disclosed by the Pujo Investigation of 1912.[10] It was shown that

eighteen selected financial institutions, namely, J. P. Morgan & Co., New York; First National Bank, New York; Guaranty Trust Co., New York; Bankers Trust Co., New York; National City Bank, New York; Kuhn, Loeb & Co., New York; National Bank of Commerce, New York; Hanover National Bank, New York; Chase National Bank, New York; Astor Trust Co., New York; New York Trust Co., New York; Blair & Co., New York; Speyer & Co., New York; Continental & Commercial National Bank, Chicago; First National Bank, Chicago; Illinois Trust & Savings Bank, Chicago; Kidder, Peabody & Co., Boston and New York; and Lee, Higginson & Co., Boston and New York, were affiliated through a system of interlocking directorates with banks, trust companies, transportation

[9] Henri Hauser, *Germany's Commercial Grip on the World*, pp. 48–50.

[10] *Report of the Committee Appointed to Investigate the Concentration of Control of Money and Credit*, 62d Cong., 3d Sess., "Money Trust Investigation: Interlocking Directorates."

systems, public utility companies, and trading corporations. In the aggregate they held 385 directorships in 41 banks and trust companies having total resources of $3,832,000,000 and total deposits of $2,834,000,000; 50 directorships in 11 insurance companies having total assets of $2,646,000,000; 155 directorships in 31 railroad systems having a total capitalization of $12,193,000,000 and a total mileage of 163,200; 6 directorships in 2 express companies and 4 directorships in 1 steamship company with a combined capital of $245,000,000 and gross income of $97,000,000; 98 directorships in 28 producing and trading corporations having a total capitalization of $3,583,000,000 and total gross annual earnings in excess of $1,145,000,000; 48 directorships in 19 public utility corporations having a total capitalization of $2,826,000,000 and total gross annual earnings in excess of $428,000,000; in all, 746 directorships in 134 corporations having total resources or capitalization of $25,325,000,000.

A smaller group of the more powerful institutions, known as the inner, or primary, group, to wit, J. P. Morgan & Co., the First National Bank, The National City Bank, The Guaranty Trust Co., and The Bankers Trust Company, together have 118 directorships in 34 banks and trust companies having total resources of $2,679,000,000 and total deposits of $1,983,000,000; 30 directorships in 10 insurance companies having total assets of $2,293,000,000; 105 directorships in 32 transportation systems having a total capitalization of $11,784,000,000 and a total mileage (excluding express companies and steamship lines) of 150,200; 63 directorships in 24 producing and trading corporations having a total capitalization of $3,339,000,000; 25 directorships in 12 public utility corporations having a total capitalization of $2,150,000,000; in all, 341 directorships in 112 corporations having aggregate resources or capitalization of $22,245,000,000.

It will be observed that some of the financial institutions enumerated above originated as investment banking institutions, that others began as trust companies, and still others as national banks. But regardless of their original functions or their present designation as investment, commercial, or trust institutions, all are now engaged in similar financial operations; all are interested in underwriting and distributing investment securities; all maintain commercial banking departments; and all are affiliated with other financial institutions and business corporations. Here is financial and business integration in its most highly developed form.

The affiliation of the smaller banks and bankers throughout the country with the inner groups and subgroups of the so-called

"money trust" is set forth by the Pujo committee in the following terms:

Beyond these inner groups and subgroups are banks and bankers throughout the country who co-operate with them in underwriting or guaranteeing the sale of the securities offered to the public, and who also act as distributors of such securities. It was impossible to learn the identity of the corporations, owing to the unwillingness of the members of the inner group to disclose the names of their underwriters, but sufficient evidence appears to justify the statement that there are at least hundreds of them and that they extend into many of the cities throughout this and foreign countries.

The patronage thus proceeding from the inner group and its subgroups is of great value to these banks and bankers, who are thus tied by self-interest to the great issuing houses and may be regarded as a part of this vast financial organization. Such patronage yields no inconsiderable part of the income of these banks and bankers without much risk on account of the facilities of the principal groups for placing issues of securities through their domination of great banks and trust companies and their other domestic affiliations and their foreign connections. The underwriting commissions on issues made by this inner group are easily earned and do not ordinarily involve the underwriters in the purchase of the underwritten securities. Their interest in the transaction is generally adjusted, unless they choose to purchase part of the securities, by the payment to them of a commission. There are, however, occasions on which this is not the case The underwriters are then required to take the securities. Bankers and brokers are so anxious to be permitted to participate in these transactions under the lead of the inner group that as a rule they join when invited to do so, regardless of their approval of the particular business, lest by refusing they should thereafter cease to be invited.

In the case of the New York subway financing $170,000,000 of bonds by Messrs. Morgan & Co. and their associate, Mr. Davison estimated that there were 100 to 125 such underwriters who were apparently glad to agree that Messrs. Morgan & Co., the First National Bank, and the National City Bank should receive 3 per cent, equal to $5,100,000, for forming this syndicate, thus relieving themselves from all liability, whilst the underwriters assumed the risk of what the bonds would realize and of being required to take their share of the unsold portion.

The possibility of competition between these banking houses in the purchase of securities is further removed by the understanding between them and others that one will not seek, by offering better terms, to take away from another a customer which it has heretofore served, and by corollary of this, namely, that where given bankers have once satisfactorily united in bringing out an issue of a corporation they shall also unite in

bringing out any subsequent issue of the same corporation. This is described as a principle of banking ethics.[11]

The significance of this consolidation movement in the field of finance lies not so much in the mere size of the institutions in question or in the community of interest that has been established among them as in the control which they may possibly exercise over the industries with which they are affiliated, directly and indirectly. The enormous changes in the economic system which were effected between the years 1897 and 1912 constitute an industrial revolution of quite as far-reaching importance as those which marked the breakdown of the old handicraft régime and the emergence of the factory system. So swift has been the change in the nature and scope of industrial and financial enterprise since the turn of the century that as yet we have little understanding of its possible ultimate significance.

The extent of the power that is exercised by the great German banking consolidations is stated, rightly or wrongly, by Riesser, the foremost German writer on banking problems, as follows:

> The great banks are able to elaborate programmes for joint action. United by a kind of quasi-contract, forming practically a tacit syndicate, they are able to raise themselves above the mere policy of dividends, to keep count of interests both general and national, to adopt an industrial policy, to direct the placing of capital, colonial undertakings and the business of exportation, canals, navigation, and cables. They are able to exercise control of the Press and of public opinion, to anticipate crises and weaken their effect, to prevent panic. Thanks to the "entente" between the State and a small number of banks which have their headquarters or (as in the case of the Darmstadter and the Dresdner) their center of gravity at Berlin, intervention becomes rapid and efficacious.[12]

While in the United States there has long been popular distrust of Wall Street, the movement toward financial concentration attracted very little attention until the panic of 1907. At

[11] *Report of the Committee Appointed to Investigate the Concentration of Control of Money and Credit*, 62d Cong., 3d Sess., No. 1593, pp. 132–33.

[12] Jacob Riesser, *Grossbanker*, p. 614.

that time there developed a widespread, though mistaken,[13] belief that the panic was engineered by a group of financiers who through manipulation of the financial markets were in a position to reap a golden harvest of unprecedented proportions at the expense of their unfortunate victims. The belief that a relatively small group of financiers had acquired a commanding control over the major industries of the country was strengthened in the succeeding years by the increasing financial concentration that immediately followed, by the acknowledged affiliation of the larger banking institutions of the financial centers with the great industrial, railroad, and other consolidations which had developed, and by various stories which circulated freely in financial and business circles, during the latter years of the period in question, to the effect that the underwriting of securities as well as the extension of short-term credit were denied to certain corporations for no other reason than that they chanced to be competitors of corporations in which the directors of the great banking institutions were personally interested. None of these charges, it should be added, was ever subsequently shown to be true. The agitation on the subject, however, finally led to the congressional "money trust" investigation of 1912, to which reference has already been made.

On behalf of the financial interests whose integrity was impugned by the money trust investigation of the Pujo committee, J. P. Morgan and Company, upon invitation of the committee, submitted a defense of financial concentration. While this argument is not altogether conclusive, it so definitely discloses the fundamental issues involved that it is presented, in abbreviated form, herewith:

> Just as grain and cotton and manufactures are commodities subject to the unchanging laws of supply and demand, so, in the same way, money and credits are commodities subject to the same unvarying laws, but far more intensely; for while bulky merchandise is not always immediately transferable upon demand, money and credits are so liquid as to be transferable by telegraph all over the world. Since the beginning of organized

[13] See the analysis on pp. 488–97.

industry and commerce, covering more than two centuries in England, France and Germany and one hundred years in America, men never yet have succeeded in overriding economic law; and, further, such an achievement is impossible, even though one were willing to attribute sinister motives to the leading business men in the chief cities of this country.

In the preamble to the House Resolution under which your Committee acts we find this statement: "Whereas it has been further charged and is *generally believed* [the italics are our own] that these same groups of financiers are enabled to regulate the interest rates for money, to create, avert, and compose panics, etc." The factors which determine interest rates are not local in their source, but are world-wide, being determined and—owing to the freedom of international exchange—being regulated by the average demand for credit throughout the world's money markets. If any man or group of men had the ability and resources—which they have not—to withhold credits in any one market, like New York, the situation would ordinarily be promptly relieved by the automatic inflow of credits from some altogether outside source.

We regret that a belief so incredible, so abhorrent, and so harmful to the country as that the panic of 1907 was actually due to the machinations of certain powerful men should for a moment have found lodgment anywhere.

No one will deny that men frequently are selfish, ambitious, and reckless, but in order to sustain the theory that the panic of 1907 was "engineered" one must attribute some motive for their assumed achievements. And by no process of reasoning can such motive be imagined, because of the fact that men possessing even a fraction of the influence and resources attributed to them always are the ones holding the largest amounts of fixed investments which, by disturbed financial conditions, always suffer most severely. It is impossible, therefore, to imagine a motive on the part of such persons as would lead to a campaign of self-destruction.

The resolution under which your Committee acts further states that a comparatively small group of men "have wielded a power over the business, commerce, credits, and finances of the country that is despotic and perilous and is daily becoming more perilous to the public welfare."

For the maintenance of such an impossible economic theory there have been spread before your Committee elaborate tables of so-called interlocking directorates from which exceedingly mistaken inferences have been publicly drawn. In these tables it is shown that 180 bankers and bank directors serve upon the boards of corporations having resources aggregating twenty-five billion dollars, and it is implied that this vast aggregate of the country's wealth is at the disposal of these 180 men. But such an implication rests solely upon the untenable theory that these men, living in different parts of the country, in many cases personally unacquainted

with each other, and in most cases associated only in occasional tranactions, vote always for the same policies and control with united purpose the directorates of the 132 corporations on which they serve. The testimony failed to establish any concerted policy or harmony of action binding these 180 men together, and as a matter of fact no such policy exists. The absurdity of the assumption of such control becomes more apparent when one considers that on the average these directors represent only one-quarter of the memberships of their boards. It is preposterous to suppose that every "interlocking" director has full control in every organization with which he is connected, and that the majority of directors who are not "interlocking" are mere figureheads, subject to the will of a small minority of their boards.

Perhaps the greatest harm in the presentation referred to lay in the further unwarranted inference, to which has been given wide publicity, that the vast sum of $25,000,000,000 was in cash or liquid form, subject to the selfish use or abuse of individuals. Such an idea excites the public mind to demand the correction of a fancied situation which does not exist.

The steady growth in the size of banks in New York and Chicago and the frequent merger of two or more banks into one institution have erroneously been designated before your Committee as "concentration." This steady growth and these mergers, however, are a development due simply to the demand for larger banking facilities to care for the growth of the country's business. As our cities double and treble in size and importance, as railroads extend and industrial plants expand, not only is it natural, but it is necessary, that our banking institutions should grow in order to care for the increased demands put upon them. Perhaps it is not known as well as it should be that in New York City the largest banks are far inferior in size to banks in the commercial capitals of other and much smaller countries. The largest bank in New York City today has resources amounting to only three-fifths of the resources of the largest bank in England, to only one-fourth of the resources of the largest bank in France, and to less than one-fifth the resources of the largest bank in Germany. As the Committee is aware, in New York City there are only three banks with resources in excess of $200,000,000, while there are ten such institutions in London, five in Berlin, and four in Paris.

It is also perhaps not sufficiently recognized that, even as it is, American banks have not fully kept pace with the development of American business. Hundreds of the financial transactions of today are so large that no single bank commands sufficient resources to handle them. This is especially true with respect to the great public utilities which are essential for the development and welfare of the community. Even our largest banks are seldom able separately to extend the credit which such undertakings require, no one national bank being permitted by law to loan in excess of

10 per cent of its capital and surplus to any one individual or concern. When it is remembered that literally hundreds of corporations in this country are now obliged to borrow annually sums of a million dollars and upward apiece, it is obvious that the size of our banks must grow to keep pace with this demand.

We lay perhaps especial stress upon this point, because of what seemed to us a readiness upon the part of your Committee to adopt the idea that in such co-operation by bankers there lies the germ of something sinister and dangerous, and that "these groups of individuals" can "prevent competition with the enterprise in which they are interested, to the detriment of interstate commerce and of the general public." So far as our observation and experience go, we can make the positive statement that, except under unfavorable money-market conditions, we have never heard of any responsible and deserving individual, firm, or corporation, being unable to secure ample credit.

Many questions were asked before your Committee as to the wisdom in having representatives of private banking houses sit upon the boards of corporations whose securities the same bankers frequently offer for sale. This practice, which has been in vogue ever since the creation of limited companies has arisen, not from a desire on the part of the banker to manage the daily affairs of the corporation or to purchase its securities more cheaply than he otherwise could, but rather because of his moral responsibility as sponsor of the corporation's securities, to keep an eye upon its policies and to protect the interests of investors in the securities of that corporation. For a private banker to sit upon such a directorate is in most instances a duty, not a privilege. Inquiry will readily develop the fact that the members of the leading banking houses in this country—and it was the leading houses only against which animadversions were directed—are besought continually to act as directors in various corporations, whose securities they may handle, and that in general they enter only those boards which the opinion of the investigating public requires them to enter, as an evidence of good faith that they are willing to have their names publicly associated with the management.

As the final point of this memorandum we venture to submit the consideration that in a strong public opinion, such as exists in this country, there lies the greatest safeguard of the community. The public, that is, the depositors, are the ones who entrust bankers with such influence and power as they today have in every civilized land, and the public is unlikely to entrust that power to weak or evil hands. Your counsel asked more than one witness whether the present power held by bankers in this country would not be a menace if it lay in evil hands. Such an inquiry answers itself. All power—physical, intellectual, financial, or political—is dangerous in evil hands. If Congress were to fall into evil hands the results

might be deplorable. But to us it seems as little likely that the citizens of this country will fill Congress with rascals as it is that they will entrust the leadership of their business and financial affairs to a set of clever rogues. The only genuine power which an individual, or a group of individuals, can gain is that arising from the confidence reposed in him or them by the community. Every town, large or small, seems to choose a limited number of men (merchants, manufacturers, lawyers, and bankers) to represent it in the management of its chief local industries. Those men are entrusted with such heavy responsibilities because of the confidence which their records have established, and only so long as their records are unblemished do they retain such trusts.

These are axioms which it seems almost idle to repeat. They apply to all business, but more emphatically, we believe to banking than to any other form of commerce. To banking the confidence of the community is the breath from which it draws its life.

While the congressional investigating committee succeeded in disclosing this extraordinary degree of financial consolidation and affiliation that have been indicated above, it was, however, unable to prove the existence of a money trust or any extensive abuse of the vast financial power that had gravitated by the forces of industrial and financial integration into the control of a small group of financiers. The committee was obliged to conclude its report with this statement:

If by a "money trust" is meant "an established and well-defined identity and community of interest between a few leaders of finance which has been created and is held together through stock holdings, interlocking directorates, and other forms of domination over banks, trust companies, railroads, public-service and industrial corporations, and which has resulted in a vast and growing concentration of control of money and credit in the hands of a comparatively few men," your committee has no hesitation in asserting as the result of its investigation that this condition, largely developed within the past five years, exists in this country today.

It may be that this recently concentrated money power so far has not been abused otherwise than in the possible exaction of excessive profits through absence of competition. Whilst no evidence of abuse has come to the attention of the committee from impartial sources, neither has there been adequate proof or opportunity for proof on the subject. Here again the data have not been available.

Your committee is convinced that however well founded may be the assurances of good intentions by those holding the places of power which

have been thus created, the situation is fraught with too great peril to our institutions to be tolerated.[14]

Although the congressional investigation failed to prove the existence of a "money trust," it clearly indicated that the latest phase of our financial evolution has placed in the hands of the financial interests an enormous power which, if wielded with sinister intent, or merely with unwisdom, would be fraught with tremendous social and economic consequences. It is the consensus of opinion among students of finance—and the belief is shared by many of the leading financiers themselves—that the present concentration of financial resources contains elements of very real danger and that the movement has proceeded quite far enough.

Interlocking financial directorates have been made illegal.—The practical outcome of the money trust investigation was the incorporation in the Clayton Act of October 15, 1914, of certain provisions designed to break up the system of interlocking directorates. This act provides that

no person shall at the same time be a director or other officer or employee of more than one bank, banking association, or trust company organized or operating under the laws of the United States, either of which has deposits, capital, surplus, and undivided profits aggregating more than $5,000,000; and no private banker or person who is a director in any bank or trust company, organized or operating under the laws of any state, having deposits, capital, surplus, and undivided profits aggregating more than $5,000,000, shall be eligible to be a director in any bank or banking association organized or operating under the laws of the United States.

The law further provides that no bank, banking association, or trust company operating under the laws of the United States which is located in a city of more than 200,000 population shall have as a director, officer, or employee any private banker, or any director, officer, or employee of any other bank, banking association, or trust company located in the same city.

There are three exceptions to the prohibition against interlocking directorates, besides the qualifications respecting the size of institutions and the population of the places where located. These are: (1) the prohibition does not apply to mutual savings banks which have no capital stock; (2)

[14] *Report of the Committee Appointed to Investigate the Concentration of Control of Money and Credit,* 62d Cong., 3d Sess., pp. 130–33.

the director, officer, or employee may be an officer where the entire capital stock of one is owned by the stockholder in the other; and (3) the prohibition does not apply to a Class A director in a Federal Reserve bank who serves as a director, or employee, in a member bank.

In accordance with the requirements of the Clayton Act there has been a more or less complete readjustment of directorates among the institutions concerned. No evidence has as yet been advanced, however, to indicate that this formal compliance with the law has any more effectively destroyed the "communities of interest" that existed than was the case following the dissolution proceedings in the field of industrial and railroad consolidations.

The agitation against the power of the "money trust" has, however, abated in recent years, and comparatively little has been heard about it since the Great War. This is perhaps attributable to the fact that the Federal Reserve System has rendered the credit resources of the nation more accessible to the great outlying districts of the country; and that the Federal Reserve and Federal Farm Loan systems together have tended to equalize interest rates throughout the country.

Such is the financial system that has resulted from the great changes in economic organization that have attended the transformation from the medieval handicraft and manorial system to the era of twentieth-century capitalistic enterprise. For good or for ill the economic system has become predominantly pecuniary; modern life is largely organized about the pecuniary unit of calculation; business processes are everywhere worked out through financial means; and even the larger aspects of economic organization are in no small measure regulated through the intermediation of financial institutions and agencies. There is little exaggeration in saying that the economic society of our times is financially organized and controlled.

This study has endeavored to demonstrate neither that the modern financial system is the embodiment of economic perfec-

tion nor that it is inherently vicious in its economic and social consequences. The effort has rather been to reveal the forces responsible for its development, to disclose the various economic services rendered by the numerous individual financial institutions and agencies that make up the financial structure, and to indicate the functions performed by this larger financial system in the general economic organization. The definite purpose has been to describe the financial system as it is—to portray its weaknesses, as well as its elements of strength in performing the tasks assigned. Certain specific problems of regulation and control and certain fundamental issues concerning the relationship of finance to the larger economic organization have been raised, but not resolved. The working out of such reformation or reorganization of the system as is necessary to render it more fully subservient to the requirements of economic society is rather the task of the present and of the succeeding generations. If this volume contributes something to that understanding of the problems of financial organization without which intelligent reconstruction is impossible, its purpose will have been amply fulfilled.

QUESTIONS FOR DISCUSSION

1. Draw up a statement in outline form, indicating all of the ways in which the pecuniary system renders economic services.
2. Draw up in summary form a statement of all of the weaknesses which you find in the financial organization of society.
3. Draw up a statement showing the interrelations of finance and the general economic system.
4. "The growth of large-scale industry necessitated the development of national supervision of the banking system." Why?
5. Concretely, how great is the control of the individual commercial banker over the business of his community, where there are competing banks in the field?
6. Do you know of any cases where commercial bankers have misused the power which they possess by virtue of their control over loanable funds?
7. Draw up in outline form a statement of the ideal qualifications which members of the Federal Reserve Board should possess.
8. "The world has become an economic unit." Do you think this statement holds true so far as the financial aspects of things are concerned?

9. "There is just as much reason why we should have a system of international financial control as a system of national financial control." Why, or why not?
10. Cite as many illustrations as possible of the difficulties arising from the control of finance by individual nations rather than by an international organization.
11. Account for the concentration movement in finance in the United States. Do you see any means by which it could have been prevented?
12. Show in what ways the growth of financial concentration was necessary to the growth of corporate consolidations in the fields of industry and commerce.
13. If you had been in a position to control our economic destiny, would you have prevented the industrial and financial revolution that occurred between 1897 and 1912. Why, or why not?
14. Is the financial concentration that now exists confined to the investment banking field? Is it in any sense specialized concentration?
15. Do you think it possible for a group of large financial interests to charge what rates they please for money? Can they charge more to some people than to others?
16. Are not the interests of financiers and of the people identical in that without general business prosperity the operations of the financiers would be impossible?
17. Do you agree that the investment bankers could have no possible motive for causing a panic in 1907, or at any other time?
18. In view of your previous study of the economic cycle and the history of the panic of 1907, does it seem to you likely that that panic was "engineered" by the interests?
19. Do you think that it is necessarily "preposterous" to suppose that an interlocking director may have *full* control of the policy of a company? *substantial* control? Why?
20. In your opinion is it likely that credit has often been refused to deserving borrowers merely because such borrowers were competitors of enterprises in which the investment bankers themselves were interested? What is to prevent such a practice?
21. "The so-called money trust is in a position to prevent the procuring of credit only in the case of very large issues of securities." Why?
22. "Supposing the general control of the country's greater banking institutions to be in the hands of a financial group which also dominated certain railway companies and certain industrial corporations, would it, or would it not, be possible for an important legitimate enterprise, competing with those railways or industrial corporations, to be organized as easily as before? Human nature being what is is, the answer must be in the negative." Do you agree?

23. Have you known of cases in small towns where the banker has refused loans to those who were competitors of his in non-banking lines?
24. Are interlocking directorates necessarily developed for sinister purposes?
25. On the whole, do you believe that there is an effective "money trust"?
26. Do you feel, with J. P. Morgan and Company, that the public can safely rely upon our financial representatives to safeguard our interests through peril of deposition as soon as they do not warrant our confidence? Concretely, how is the process of deposing those whom we no longer trust brought about?
27. "Although the present directors of huge financial resources may owe their position to a process of competitive selection by means of which the especially faithful and capable administrators have been brought to the top, it does not necessarily follow that the descendants, and inheritors of the wealth, of these magnates will have the same ability or integrity." Discuss this statement.
28. If you were in a position of power, what would you do to minimize the dangers of financial concentration?

REFERENCES FOR FURTHER READING

Angell, Norman: *The Great Illusion.*

Brandeis, Louis D.: *Other People's Money.*

Hauser, Henri: *Germany's Commercial Grip on the World.*

Keynes, J. M.: *The Economic Consequences of the Peace,* chaps. ii and vi.

Moulton, Harold G.: *Principles of Money and Banking,* pp. 471–95.

Phillips, Chester A.: *Readings in Money and Banking,* chap. xxviii.

Report of the Committee Appointed to Investigate the Concentration of Control of Money and Credit, 62d Cong., 3d Sess.

INDEX

INDEX

Accommodation draft, 120
Accounts payable, 118, 125
Accounts receivable, 118, 125
Affiliated banks, 723
Agricultural credit, chap. on, 623–74; chart of institutions involved in, 625; legislation of states, 662–63
Agricultural loans, renewal of, 632–34
Aldrich Bill, 546–47, 549
Aldrich-Vreeland Act, 545
Aldrich-Vreeland emergency currency, 545–46
Amalgamated Bank of New York, 711, 712
American Acceptance Council, 585
American Telephone and Telegraph Company, 208
Amortization loans, 658-60
Apartment houses, loans on, 686–88
Arbitrage, 149
Assay commission, 65
Assay offices, 65
Assigning accounts, 418–19
Atlanta case, 590
Australian loan of 1925, 258
Automobile bank (*see* Discount companies)

Balance of trade, significance of, 55–56
"Baltimore plan" of currency reform, 544
Bank acceptance, basis of discount market, 579–85; illustration of, 123, 393
Bank checks, 121; illustration of, 124; in a sense not credit instruments, 121
Bank draft, 119; illustration of foreign, 124; not true credit instrument, 121
Bank examinations and reports, 535–36
Bank failures, causes of, 528; of various classes of bank, 722–23
Bank loans (*see* Commercial bank loans)
Bank notes, 121; regulation of, 539–41 (*see* also National Bank notes, Federal Reserve Bank notes, and Federal Reserve notes)
Bankers' deposits, 454–55; and financial panics, 504–5
Bankers' shares companies, 256
Banks, organized by labor organizations (*see* Labor banks)
Baring Brothers, 205
Barter, inconvenience of, 38
Belgian loan in United States, 258
Bell Telephone Securities Company, 208
Bill of exchange, definition of, 119; finance, 147, 120; foreign versus domestic or inland, 119; illustration of bankers', 124; sterling, 390; trade (or commercial), 147, 120
Bill of lading, illustration of, 380; in foreign trade, 393; kinds of, 377; nature of, 376–77; as security for loans, 377
Bill of Lading Act, 379
Bimetallism, and compensatory action, 70–71; and Gresham's law, 66–72; history of, in U. S., 67–68; international, 71; reasons for adoption of, 66; weakness of, 66
Bland-Allison Act, 70
Blue Sky legislation, 189–96; limitations of, 196–98; of Illinois, 190–95; of Kansas, 189

Bonds, advantages of, 169; determination of value of, chart, 215; illustration of, 114–15; real estate, 686–91; types of, 111–13
Book credit (book accounts), 118, 125
Borrowers statement, illustration of, 363
Branch banking, 732–34
Brokers (*see* chart, 165); branch offices, 271–72; commissions of, 271; regulation of, 273; stock exchange, 268–71; street, 232
Bubble Act of 1719, 171
Bucket shops, 274
Budgets (*see* Deficits)
Building and loan associations, 676–81, 685
Business booms (*see* Business cycles)
Business cycles, causes of, 488–97; chap. on, 473–523; chart, 485; and commercial banking, 497–519; and the economic system, 744–45; and individual banker's control, 747
Business depression (see Business cycles)
Business failures in time of depression, 486–87

Call loans, definition of, 357; and stock exchange speculation, 372–75; in time of crisis, 508
Capital formation, under a capitalistic system, 46–47
Capital Issues Committee, 197
Capital raising, the corporation and, chap. on, 168–79; by direct subscription, 164; through promotion, 181–89; through reinvestment, 164
Cashier's check, 121; illustration of, 124
Cattle loan company, chart, 625; functions of, 634–41
Cattle paper, 639
Central banks, European and credit control, 648–49; opposition to, 547 (*see also* First and Second Banks of the United States)
Central reserve cities, meaning of term, 353
Certificates of deposit, 355
Certified check, 121
Chattel mortgage, illustration of, 426
Checks (*see* Bank checks)
Clayton Act, 764–65
Clearing-house associations, 438–51
Clearing-house bank examinations, 449–51
Clearing-house certificates, 441–42
Clearing-house checks, 515
Clearing-house loan certificates, 511–15
Clearings under Federal Reserve System, 585–91
Coinage, effects of bad system of, 63–64; a government function, 62; necessity of, 61, 62; regulations in United States, 64–66
Coins, abrasion of, 65; counterfeiting of, 61, debasing of, 85
Collateral loans, 368–72; to member banks, 569–70, 603, 604
Collateral trust bond, 113, 290
Collection charges, 448; diversity of, 586; reduction of, under Federal Reserve System, 588–89
Collections, 452–53; under Federal Reserve System, 585–91
Commercial Acceptance, Trust (*see* Discount companies)
Commercial agencies, 360–61
Commercial banker, dominant position of, 745–47
Commercial bank investments, 356; kinds of, 383; volume of, 383, 468
Commercial banking system, chap. on, 438–72; and business cycles, chap. on, 473–523 (*see also* Commercial banks)

Commercial bank loans, for agriculture, 630–34; analysis of, 356–83; capital purposes, 365, 468; classification of, in national banks, 359; and deposits compared, 461; fixed in time of crisis, 507; importance of, 356; regulation of, 511–15; secured by bills of lading, 376–70; secured by mortgages, 367; secured by promissory notes, 367; secured by stocks and bonds, 367; secured by warehouse receipts, 379–82; types of, 357

Commercial banks, and agricultural credit, 630–34; and business cycles, 497–519; chap. on practical operations of, 338–89; classification of, 339; and economic organization, 466–69; engaging in trust company operations, 723–24; and foreign trade, chap. on, 390–405; growth and importance of, charts, 340–41; incidental services of, 342–44; investments of (*see* Commercial bank investments); position in financial structure (see charts, 163, 165, 625), 356, 468. 506; relation to commercial paper houses, 409; relation to discount companies, 421–22

Commercial credit, 99–100

Commercial credit companies (*see* Discount companies)

Commercial credit instruments, 118–26 (*see also* Credit instruments)

Commercial letters of credit (*see* Letters of credit)

Commercial loans, nature of, 357 (*see also* Single-name and Two-name paper)

Commercial paper, not liquid in time of crisis, 509–11; as secondary reserve, 456; street use of term, 414

Commercial paper houses, chart, 165, 406–18; economic significance of, 415–18

Common denominator of value (*see* pecuniary unit)

Common stock, 169, 109–10

"Community of interest," 723, 765

"Compensated" dollar (*see* "Stabilized" dollar)

Comstock Lode, 73

Concentration of money and credit (*see* Financial concentration)

Conditional sale agreement, illustration of, 429

Consolidated stock exchange, 265–66

Consumptive credit, definition of, 100

Consumptive credit institutions, chap. on, 694–716

Contingent liabilities, 362

Control of discount rates, under Federal Reserve System, 570, 575–76; after the war, 608–10, 619–20

Controller of the Currency, 376; duties of, 535–36

Co-operative credit associations, agricultural, 626–27, 707–10

Corporate reorganizations, 294

Corporation, as capital raising device, chap. on, 168–79; "close," 164; use of in real estate financing, 689–90; relation to financial structure (chart 165), 745

Correspondent banks, 452–57

Cotton "factor," 629

Country banks, meaning of term, 353

Credit, basis of, 100–2; book, 118–19; commercial, 99; consumptive, 100; investment, 99; kinds of; nature and functions of, 96–106; significance of, 102–4

Credit analysis, 360–65

Credit currency (*see* Deposit currency)

Credit department, 360

Credit instruments, 97; chap. on, 107–41; commercial, 118–26; investment, 107–18; as media of exchange, 126–27

Credit unions (*see* Co-operative credit associations)
Creditor nation, 249
Crime of 1873, 70, 72
Crises (*see* Business cycles)
Crop liens, nature, 629
Curb market, 266–67; importance of, 267; present organization of, 266; price of seats on, 267; securities listed on, 267
Currency, debasement of, 85
Currency act of 1900, 77; banking provisions of, 544
Custodian of Securities, 297–303
Cyanide process, 73

Debenture bond, 113
Decentralized banking, 500–2
Deficits, issue of bonds to cover, 154; issue of paper money to cover, 86, 154; relation to foreign exchange, 154–56
Demand loans, definition of, 357
Department-store finance (*see* Financial integration)
Deposit currency, amount of, 464–66; elasticity of, 665–66; elasticity of under Federal Reserve System, 570; increasing importance of, 354; origin of, 348–51; reasons for elasticity, 477–78
Depositary banks, for government funds, 355; 591–92
Depressions (*see* Business cycles)
Discount companies, chart, 165, 418–37; economic significance of, 434
Discount Corporation of New York, 584
Discount market, nature and functions of, 580–84; in the United States, 584–85
Discount rates, control of, 570, 575–76, 608–11, 616, 620 (*see also* Interest rates)
Discounting receivables (*see* Assigning accounts)
Dollar drafts, export, 398, 400, 404; import, 394
Domestic exchange, 150–51, 453
Double liability of bank shareholders, 530
Draft (*see* Bills of exchange, trade acceptance, bank draft, accommodation draft)
Dwelling-houses, loans on, 681–82

Edge Act, passage of, 252; and American foreign investments, 252–54; and direct financing of exports, 402–4
Elastic currency (*see also* Inelastic currency), under Federal Reserve System, 555–66
Equalization of reserves, 511–15
Equipment trust obligations, 112, 290
Escrow, meaning of, 286
European debt to United States, 249–51
European reconstruction, and American loans, 258–59
Exchange, domestic (*see* Domestic exchange)
Exchange, foreign (*see* Foreign exchange)

Farm mortgage broker (chart, 625), 648–49
Farm mortgage companies (chart, 625), 649–52 (*see also* Mortgage companies)
Farm indebtedness, working capital, 628; fixed capital, 646–48
"Farmer's bank," 631
Federal Advisory Council, 554
Federal Farm Loan Act, passage of, 654
Federal Farm Loan Board, nature and general powers of, 654
Federal Farm Loan districts, map of, 657
Federal Farm Loan Registrar, 658, 662
Federal Farm Loan System, criticisms of, 668–70; loans of, 656–59, 666; organization of, 654; results of, 666–68

Federal Intermediate Credit Banks, chart, 625; functions of, 643–44; organization of, 642; rediscounts and loans of, 644–46; supervision of, 642

Federal Land banks (chart, 625), 657; financial statement of, 664–65

Federal Reserve Act, evolution of, 543–50

Federal Reserve Agent, 553, 558, 564

Federal Reserve banks, collateral loans of, 569–70; discounts of, 617; total earning assets of, 617; financial statement of, 594; interborrowing operations, 574; open market operations of, 576–78, 617, 618–19

Federal Reserve bank notes, amount of, 93; legal tender of, 566; regulation of, 576–77

Federal Reserve Board, and Administration of the Edge Act, 253; extraordinary power of, over economic system, 747–49; general powers and duties, 553–54

Federal Reserve districts, map of, 551; size of, 550

Federal Reserve notes, amount of, 93; legal tender of, 566; regulation of, 557–65

Federal Reserve System, chaps. on, 543–622; and control of business cycle, and war finance, 570–78; and export financing, 251–54, 390–402; and foreign branch banks, 402; position in financial structure, charts, 163, 165, 625; and state banks, 729–32

Fiat currency, 81

Finance companies (*see* Discount companies)

Financial concentration, Congressional investigation of, 755–58; defense of, by Morgan and Company, 759–63; in Germany, 753–55; in New York, 752–55

Financial crises (*see* Business cycles)

Financial integration, 166, 304; chap. on, 717–37; and concentration, 756

Financial organization, international aspects of, 749–51

Financial panics (*see* Business cycles)

Financial reorganizations, 294

Financial statement, illustration of, 363

Financial structure, 161–67; charts of, 163, 165, 209, 625

Financial system and the general economic organization, chap. on, 738–68; interdependence of, 743–45 (*see also* Pecuniary system)

First Bank of the United States, 526

Fiscal agency, 295

Fixed capital, 5, 161; charts on, 163, 165, 625

Flow of money, chart showing, 47

Foreign bond-trust certificates, 256

Foreign branch banks, 401

Foreign debt due the United States, 250

Foreign exchange, chap. on, 142–60; depreciation of, 152–56; during the war, 152–55; pegging of, 152; relation to budget and currency conditions, 154–56; since 1918, 152–56

Foreign financing, chap. on, 390–405 (*see also* Investment trusts, and Foreign trade)

Foreign investment trusts (*see* Investment trusts)

Foreign investments, and free silver agitation, 23; of United States, 249–51; of Great Britain, 245–47

Foreign loans floated in United States, 250–51, 257–59

Foreign securities, marketing of, chap. on, 245–60

Foreign Trade Financing Corporation, 254–55

Foreign trade, financing of (*see* Foreign financing)

Fractional silver coins, redemption of, 76; amount of, 93; legal tender of, 78
Franc, fluctuations of, 156–57; charts, 155, 157; pegging of, 152
France, bond issues of, 154
"Free banking" law of New York, 529
Free silver agitation, and international finance, 22; and domestic finance, 23

German banking, concentration of, 753–55
German financial concentration, 753–55, 758
German loan of 1924, 258
German mark, post-war depreciation of, 24–26
German note circulation, 25
Germany, gold holdings of, 25
Gold, commercial ratio to silver, 75; domestic flow of, 149; durability of, 16; holdings of leading nations, 158; international flow of, 149–50; production of, 74; relative stability of, 17; why chosen as standard, 72–73
Gold certificates, 90; amount of, 93; exchanged for Federal Reserve notes, 563–64; legal tender of, 92; recently put into circulation, 564; redemption of, 91
Gold clearance (*see* Gold settlement fund)
Gold coin, amount of, 93; legal tender of, 77–78; weight of, 1
Gold dollar, definition of, 18
Gold exchange standard, 70
Gold points, 147
Gold settlement fund, 588–89
Gold standard, history of, 67–70; law of 1900, 70
Government deficits (*see* Deficits)
Government regulation of banking, chap. on, 524–42
Greenback currency, amount of, 93; and debtor class, 30; legal tender of, 92; purpose and nature of, 91; redemption of, 91
Gresham's Law, and defective coinage, 62; and bimetallism, 66–72
Guaranteed bonds, 691

High-grade securities, chap. on, 202–44
Hoarding, and financial panics, 504

Independent treasury (*see also* Depositary banks), 480
Index numbers, purpose of, 19; method of computing, 19; nature of, 20
Index of production, 616
Inelastic currency (*see also* Elastic currency), under national banking system, 475–78; and financial crises, 502–4
Inflation, process of, 84–88; in Europe, 154–56
Insurance companies (charts, 163, 165, 625); and bond distribution, 288; as savings institutions, 325–29
Integration (*see* Financial integration)
Inter-bank borrowing, 455–57
Interest rates, in New York City (chart 375); on deposits, 446; on loans, 447–48 (*see also* Discount rates)
Interlocking directorates, system of, declared illegal, 764–65
Intermediate credit, agricultural, 634–46; chart, 625
Intermediate Credit System (*see* Federal Intermediate Credit banks)
International finance, control of, 749–51 (*see also* Foreign exchange)
Investment banking, concentration and integration of, 755–64; and economic organization, 237–41; function of distribution, 224–30; function of investigation and analysis, 210–18; function of un-

derwriting (*see* Underwriting); functional chart of, 209; interrelations of, with financial system (chart), 165; profits of, 230–33; regulation of, 235–37; sundry services of, 230–33

Investment credit, 99

Investment loans, nature of, 357, 370–72

Investment trusts, 245–49; American authorized, 252–53; of Great Britain, 245–47

Joint-stock land banks chart, 625; 661–62

Klondike gold mines, 73

Labor banks, 710–14

Labor investment companies, 713

Lease agreement, illustration of, 433

Legal tender, of Federal Reserve bank and Federal Reserve notes, 565–66; of government paper money, 91–92; of metallic money, 77–78; of national bank notes, 353; purpose of, 77

Letter of credit agreement, illustration of, 396

Letters of credit, 391–94; illustration of, 397

Limited liability, advantages of, 170–72

"Limping standard," 69

Liquidation of loans, automatic theory, 509–10; annual, 510

"Living trusts," 287

Loan sharks, 700–5

London stock exchange, 245; 261–62

Low grade securities (*see* Speculative securities); and stock exchange speculation, 278–79

McLean Act, 252

"Margin" trading, 268–69

Medium of exchange, function of, 38–39; and capitalistic production, 40

Mercantilism, 55–57

Metallic currency, legal tender of, 77–78; regulation of, 61–80; subsidiary forms of, 76–77

Minor coins, redemption of, 76; legal tender of, 78

Mint, charges at, 65; tolerance of, 65; of United States, 65

Monetary unit (*see* Pecuniary unit)

Money, as a store of value, 39; and business organization, 40–41; and capital formation, 46–47; confusion of with wealth, 54–57; and distribution of productive energy, 46; flow of (chart), 47; and peace finance, 45–48; quanity of, required by nation, 57–59; regulation of metallic, chap. on, 61–80; regulation of paper, chap. on, 81–95; stock of, and kinds in United States, 93; use of in production, 40–42; and war finance, 42–45

Money rates (*see* Interest rates)

Money trust (*see* Financial concentration)

Morgan & Co., 258, 154, 210, 755; defense of financial concentration, 759–63

"Morning" loans, 376

Morris Plan Bank, 705–6

Mortgage companies (chart), 163 (*see also* Farm mortgage companies)

Mortgage, "old line," 681

Mortgage security, 108; significance of, 113; trustee for, 289

National Bank Act, 525

National bank notes (*see also* Bank notes); amount of, 93; declining importance of, 354; inelasticity of, 476; legal tender, 352; regulation of, 352; reasons for, 477; under Federal Reserve System, 555–56

National banks, 339; investments of, 383; loans of, 359

National Citizens' League, 547

National Farm Loan associations, chart, 655

Negotiability vs. salability and transferability, 127–28; of bonds. 137; of checks, bank notes, and drafts, 136; essentials of, 132–34; legal procedure with, 132–34; principle of, 129; of stock, 137

Negotiable Instrument Law, 131

New York Curb (*see* Curb)

New York Stock Exchange, history of, 262–63; listing requirements for foreign bonds, 257; organization of, 262–63; sale of seats on, 262

Note brokerage (*see* Commercial paper houses)

Open accounts (*see* Accounts receivable)

Open market operations (*see also* Discount market), 576–78, 618–19

Overcapitalization, 111

Overcertification, 376

Overdrafts, 313

Panic of 1907, and savings banks, 317

Paper currency, convertible or fiduciary, 81; depreciation of, 154; French, 87; German, 86–87, inconvertible or fiat, 81; irredeemable, 82; regulation of government, 81–95; representative, 81; revolutionary, 85; value of, 84

Par collections, 589–91

Par of exchange, 144

Partial payment plan, sale of real estate mortgage bonds on, 688–89

Pawnbroking, 696–700

Pecuniary system, and economic and social standards, chap. on, 51–60; advantages of, 739; disadvantages of, 740–41

Pecuniary unit, and apportionment of family expenditures, 8–10; and business administration, 3–8; definition and origin of, 1–3; and economic organization, 10–12

Preferred stock, 109, 169; illustration of, 116–17; "modern," 109–10

Price changes, causes of, 20; chart of, 27; after Civil War, 30; and creditor class, 31–32; and debtor class, 31–32; economic consequences of, 20–28; and fixed incomes, 34–35; and German trade, 25–26; and social maladjustments, 28–35; after 1896, 32; in United States, 1849 to 1924, 27

Price level, control of by stabilized dollar, 742; by credit restrictions, 747–49; definition of, 19; by manipulation of discount rate, 616–18; reasons for decline of, in 1920, 608–14 (*see also* Price changes)

Prices, relation of money to, 18–19; relation of deposit currency to, 465

Private banks, 339, 524

Production index, 616

Promissory note, definition of, 119; illustration of, 120; similarity to trade draft, 125–26

Promotion, methods of, 181–89

Prosperity, periods of (*see* Business cycles)

Real estate bond house, 686–89

Real estate, financing urban, chap. on, 675–93

Real estate loans, controversy over, 532–33; of national banks, 367; of state banks, 367; without mortgage security, 633

Redemption fund for national bank notes, 352

Rediscounting, before Federal Reserve Act, 455–57; under Federal Reserve System, 568–69

"Refinancing," definition of, 400

Registrar of securities, 293–94

Reichbank note, illustration of, 87

Reorganization, corporate, 294

Reserve cities, meaning of, 353
Reserves, of commercial banks, 457; and deposits, 1897–1907 (table), 498; equalization of, 511–15; and financial panics, 403; net in banking system, 461, 463–64; redepositing of, and financial panics, 504–6; redepositing of, 463–64; regulation of, 534–35; requirements for Federal Reserve notes, 565; requirements under Federal Reserve Act, 567; of Reserve banks not irreducible minima, 574–75; of savings banks, 322–23; till money, 462; ultimate, 462–63
Rural credit (*see* Agricultural credit)

Safety deposit vaults, 297
Savings banks, and agricultural credit, 626; and bond distribution, 228; chap. on, 308–37; with commercial accounts, 725–26; departments in commercial banks, 315–16; guaranty, 314; mutual, 313–15; management of, 320–24; postal, 317–20; seeking trust powers, 726; stock, 308–13
Scandinavian monetary union, 69
Seasonal variations in demand for currency, 474–82
Second Bank of the United States, 526–27
Second mortgage company, 684–85
Secondary reserves in time of panic, 508–9
Serial note (*see* Short-term notes)
Sherman Silver Purchase Act, 70; repeal of, 90
Short-term note, 113–18
Silver certificates, 90; amount of, 93; legal tender of, 92; redemption of, 91
Silver, commercial ratio to gold, 75; fractional coins, 76; price fluctuation of, 73–75; production of, 74; regulation of subsidiary, 76–77
Silver dollar, amount of, 93; coinage of, 77; legal tender of, 78; method of maintaining parity, 77; now a subsidiary coin, 76–77
Single name paper, 358–61; used in stock exchange speculation, 375–76
South African gold fields, 73
Speculation, in 1688, 174; in 1719, 171; in 1919, 186–87; on "margin," 268–71, 374; control of, 609 (*see also* Stock exchange)
Speculative securities, 186–89, 278–80
Stabilization of prices, use of discount rate for, 616–18
Stabilized dollar, 742
Standard for deferred payments, importance of, 15; why gold was chosen as, 16–17
Standard of value (*see* Pecuniary unit)
State banks, 339; and Federal Reserve System, 728–32; investments of, 383; regulation of, 536–39
Stock, advantages of, 169; common, 170; modern preferred almost equal to bonds, 109–10; preferred, 169–70; preferred cumulative, 109; preferred participating, 109; without par value, 110
Stock exchange (chart, 165), 162; brokers (*see* Brokers); and capital raising, chap. on, 261–82; committee on stock lists, 264; consolidated (*see* Consolidated stock exchange); and the distribution of capital, 277; economic functions of, 274–81; interrelations with the financial structure, 280–81; of London (*see* London stock exchange); and marketing of low grade securities, 278–80; of New York (*see* New York stock exchange); panic of 1907, 499
Stockholders' rights, 111

Sub-treasury system, abandoned, 593
Surplus, accumulation of required, 530–31
Syndicate (*see* Underwriting)

Token coins, 76
Trade acceptance, definition of, 120; illustration of, 122; similarity to promissory notes, 125–26
Trade credit, in agriculture, 628–30
Trade drafts (*see* Trade acceptance)
Transfer agent, 291–93
Treasury notes of 1890, difficulties with, 22, 90; amount of, 93; legal tender of, 92; redemption of, 91
Trial of the Pyx, 65
Trust companies and bond distribution, 228; and agricultural credit, 626; commercial banking features of, 720; and corporation finance, 288–97; and corporate reorganizations, 294–95; as custodian of securities, 297–303; as fiscal agent, 295–97; growth and importance of, 341, 342; regulation of, 303–4; as registrar, 293; as transfer agent, 291–93; chap. on, 283–307
Trust receipt, 394; and bank acceptance, 579; illustration of, 395
Trustee System Service, 706–7
Two-name paper, 365–67

Underwriting, function of, diagrams, 165, 209, 218–24; dependence on commercial banks, 222, 278; and financial concentration, 755–63; joint account arrangement, 219–21; participation, 222–23; relation to stock market, 278–79; syndicate, 221–23
United States deposits, 355
United States notes (*see* Greenback currency)
United States sub-treasury system, abandoned, 593
United States treasurer, 76, 77
United States Treasury, and bank note issues, 352, 478; and Federal Reserve notes, 566; and Federal Reserve System, 608–9; and financial crises, 508; relation to money market, 479–82

Victory loan, 608–9

Warehouse Act, of United States, 381
Warehouse receipts, nature of, 379; loans on, 379; illustration of, 382
War Finance and Federal Reserve System, 602–6
"War paper," origin of, 602–6
Working capital, 5, 161, 166; charts on, 163, 165, 625; effect of depreciation of currency upon, 26

PRINTED IN THE U.S.A.

Materials for the Study of Business

Edited by L. C. MARSHALL

TEXTS AND READINGS

THE PHYSICAL ENVIRONMENT OF BUSINESS

An Introduction to Economic Geography. Vol. I. (Vol. II in Preparation). By WELLINGTON D. JONES and DERWENT S. WHITTLESEY. *603 pages, $5.00.*

THE SOCIAL ENVIRONMENT AND SOCIAL CONTROL

Industrial Society. By L. C. MARSHALL. *1,082 pages, $4.50.*

The Social Control of Business. By J. MAURICE CLARK. *500 pages, $4.00.*

Law and Business. By WILLIAM H. SPENCER. Vol. I. Introduction. *612 pages.* Vol. II. Law and the Market. Law and Finance. *670 pages.* Vol. III. Law and Labor. Law and Risk-Bearing. Law and the Form of the Business Unit. *654 pages. Each $4.50.*

FINANCIAL ORGANIZATION AND FINANCIAL ADMINISTRATION

The Financial Organization of Society. By H. G. MOULTON. *790 pages, $4.00.*

The Manager's Administration of Finance. By STUART P. MEECH. (In Preparation.)

THE WORKER AND PERSONNEL ADMINISTRATION

The Worker in Modern Economic Society. By PAUL H. DOUGLAS, CURTICE N. HITCHCOCK, and WILLARD E. ATKINS. *962 pages, $4.50.*

Forms, Records, and Reports in Personnel Administration. By CURTICE N. HITCHCOCK. *128 pages, $1.75.*

RISK AND RISK-BEARING

Risk and Risk-Bearing. By CHARLES O. HARDY. *400 pages, $3.50.*

Readings in Risk and Risk-Bearing. By CHARLES O. HARDY. *368 pages, $3.50.*

BUSINESS ADMINISTRATION AND CONTROL

Business Administration. By L. C. MARSHALL. *920 pages, $4.00.*

Principles of Accounting. By A. C. HODGE and J. O. MCKINSEY. *390 pages, $3.00.*

Managerial Accounting. Vol. I. (Vol. II in Preparation.) By J. O. McKinsey. *655 pages, $4.00.*

Retail Accounting and Control. By A. C. Hodge. *545 pages, $4.00.*

Business Cases and Problems. Edited by L. C. Marshall. *363 pages, $3.00.*

THE BUSINESS CURRICULUM

Education for Business. By Leverett S. Lyon. *618 pages, $3.50.*

Social Studies in Secondary Schools. By A Commission of the Association of the Collegiate Schools of Business. *114 pages, $1.00.*

SPECIAL STUDIES

The Economics of Overhead Costs. By J. Maurice Clark. *502 pages, $4.00.*

Dumping: A Problem in International Trade. By Jacob Viner. *344 pages, $3.00.*

Wages and the Family. By Paul H. Douglas. *304 pages, $3.00.*

The Packing Industry. By The Institute of American Meat Packers. *358 pages, $3.00.*

Psychological Tests in Business. By A. W. Kornhauser and F. A. Kingsbury. *194 pages, $1.90.*

How to Study. By A. W. Kornhauser. *43 pages, 25 cents.*

Farmers' Mutual Fire Insurance in the United States. By Victor N. Valgren. *200 pages, $1.90.*

Recent British Economics. By D. H. MacGregor, R. Lennard, and J. A. Hobson. *134 pages, $1.50.*

The Uses of Bank Funds. By Waldo F. Mitchell. *181 pages, $2.00.*

Consumers' Co-operative Movement in Illinois. By C. E. Warne. *416 pages, $3.50.*

The History of the United Typothetae of America. By Leona M. Powell. *219 pages, $2.00.*

The Railroad Labor Board. By H. D. Wolf. *$4.00.*

Industrial Relations in the Chicago Building Trades. By R. E. Montgomery. *333 pages, $3.00.*

The Legal Aspects of Zoning. By Newman F. Baker. *182 pages, $2.50.*

THE UNIVERSITY OF CHICAGO PRESS

DATE DUE

DEC 27 1978		APR 3 1979	
DEC 16 1980		APR 18 1981	
JAN 6 1981			

261-2500

Printed in USA

HG173
M65
1925

Moulton, Harold G

The financial organization of society